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ABSTRACT

The interim report outlines the second year objectives of a proposed three-year K-12 exemplary career education project for southeast Arkansas. A program description and evaluation of the project are provided by the evaluator. Grades K-7 focused upon knowledge about work were more significant than increases in self-awareness. Grades eight and nine focused upon vocational orientation. Grade nine also experienced career counseling. These students displayed minimal increases in awareness of and knowledge about work. There was no increase in ninth grade students' career decision-making knowledge. Grades 10-12 focused upon vocational exploration, preparation, cooperative education, and counseling and placement activities. This program had little effect at the twelfth grade level, although students did benefit from placement and referral services. It is recommended that the program be continued after an examination of program activities and measurement techniques. The evaluation design summary charts for each component listing measurement instruments and data collection procedures are appended. (KJ)

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INTERIM REPORT

Project No. F6-002-VW
Grant or Contract No. OEG-0-73-5307

An Exemplary Career Education Project For Southeast Arkansas

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

The project reported herein was performed pursuant to a grant with the Bureau of Adult, Vocational, and Technical Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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I. SUMMARY

A. Time Period

This report covers the second year of a proposed three year Exemplary Career Education Project for Southeast Arkansas. The time period for this report is thirteen months (June 1, 1974 - June 30, 1975).

B. Objectives

The objectives of Career Education are found in both the cognitive and affective domains. The cognitive objectives are: (1) the increase of students' self awareness, knowledge about work, decision-making skills, better work habits, job skills, and opportunities for placement; and, (2) the increase of teachers' knowledge of career education. The affective objectives are: (1) the increase of students' self concepts, personal interests, values toward work; and (2) a closer tie of schools and community through interaction of parents, students, teachers, community resource speakers and community field trip hosts.

The performance objectives for project components will be found in the PROGRAM DESCRIPTION p. 15-24.

K-7 objectives are related to an awareness phase. Students are made aware of occupations and careers using the U.S. Office of Education 15 cluster concept. Students study self awareness through values clarification and decision making. Through a combined study of values and careers students develop the attitudes that all meaningful work has value. All Career Education concepts are infused in the normal curriculum.

8-10 objectives are branched into two channels. Career Education concepts are maintained in academic classes to provide real experiences relating to subject matter utilizing resource people and field trips. Also special demonstration classes in the Monticello School District are organized to provide a concerted effort that students may begin career decision making and planning. The 8th grade program is a one semester required course for indepth orientation of each of the 15 U.S.O.E. clusters of occupations.

In the 9th grade an exploratory class in the Construction cluster allows for students to acquire hands-on experience in over 70 occupations.

The 10th grade class in the cluster of Manufacturing is also an exploratory class offering hands-on and organizational experiences in modern manufacturing.

The 11th and 12th grades have a variety of job preparation classes that students may pursue. One of such classes is General Cooperative Education where students are placed on jobs in the community to gain first hand work experience. Students working are supervised by a member of the project staff as the GCE Coordinator.

A continuity of effort from 8th through the 12th grade is provided by a Vocational Counselor who maintains personal contact with students advancing through grade levels. The Vocational Counselor advises students in course selections compatible with career goals and finds placement for those students exiting school.

The Project Director is the fiscal manager of the projects activities and coordinates efforts of the project staff to meet the program objectives. The Director arranges the inservice activities and promotes the infusement of Career Education objectives in the curricula of the school districts in the project area. The Director is responsible for gathering Career Education materials to be implemented in the program.

C. Procedures Followed

An Exemplary Career Education Program was continued for the 2nd year to improve the economic, social, cultural, and educational resources for the students of the Monticello Public Schools and the other school districts in Drew County.

The instructional staff included the project director, the curriculum coordinator, the vocational counselor, working with 15 principals and 210 teachers in 7 school districts of Drew County effecting approximately 4,000 students.

Inservice programs setting the objectives and outlining the methods were provided for school faculties. A special two week workshop for teachers was held in the summer just prior to the opening of school and a year long graduate course was conducted for teachers of the participating schools. Special inservice programs were conducted on Attitude Therapy for the Monticello School District with all teachers attending.

1. The Awareness phase, K-7, under the supervision of the Curriculum Coordinator was implemented through specific studies appropriate for each maturity and interest level. Suggested clusters were provided each teacher along with a curriculum guide developed by the teachers during the two week workshop. The instructional materials provided to the teachers facilitated the development of positive values and wholesome attitudes toward work.

   The major areas assigned were:

   Kindergarten - Public Service and Personal Service Workers

   First Year - Hospitality and Recreation, Construction

   Second Year - Transportation and Health Occupations

   Third Year - Agri-Business and Natural Resources, Marketing and Distribution

   Fourth Year - Environment and Manufacturing

   Fifth Year - Communications and Media, Fine Arts and Humanities

   Sixth Year - Consumer and Homemaking, Marine Science, Business and Office

   Supplementing the career information was a program of value development using The Human Value Series by Steck-Vaughn.

The Career Awareness Coordinator (Curriculum Coordinator) assisted the teachers in the planning, formulation, and implementation of the curriculum materials, hands-on activities, field trips, and resource people presentations. The Coordinator also conducted inservice training workshops, disseminated materials and information, and held small group and individual work sessions for the classroom teachers. The Coordinator also supervised the elementary level audio visual materials gathered under the auspices of Career Education.

2. Grade 8 Occupation Orientation classes were reorganized to conform with Arkansas State Department of Education criterion. The program is based primarily on the U.S.O.E. 15 cluster concept, preceded by a unit on attitudes, values, and decision making and followed by a unit on preparation for employment. The course last for one semester and is taught by two teachers each working with half of the 15 clusters and exchanging students at 9 weeks. A week is spent on each unit and cluster utilizing written exercises, audio visuals, community resource speakers and field trips.

3. Grades 9 and 10 offer exploratory courses for extensive hands-on activities in Construction (9th level) and Manufacturing (10th level). Both courses were developed through a research and development grant from the United States Office of Education and offers broad concepts and principles of present technologies. Both courses were marketed by McKnight and McKnight and were completely self contained including all teaching aids with lists of materials and equipment. Teaching methods suggested by the supplier were followed where applicable within the school program.

4. Grades 11 and 12 are provided with an opportunity for part time work in the community under the supervision of a General Cooperative Coordinator. This program consists of one class period of academic instruction during the morning of the school day along with other courses one may select and on the job training in the community during the afternoons or after school. All students in this program were required to attend a class one hour a day taught by the coordinator.

In this class they were taught specific occupational skills with emphasis placed on development of proper attitudes needed to be a successful employee. Other employability skills are preparing job applications, making interviews, understanding state and federal taxes and deduction, and managing an income.

The students are supervised on the job as well as in the classroom. Each student had a supervisor on the job site to whom he was directly responsible. This supervisor worked closely with the coordinator who spent half of his school day visiting the various work stations observing the work of the students and consulting with the job supervisors.

5. The Vocational Counseling component maintains continuity with the students as they make plans and work toward goals in high school. Counselor involvement begins at the 8th grade level when student interest inventories are administered. Through group and individual counseling sessions students make plans for courses to be taken in high school to maintain progress toward career goals.

   Toward the close of the 8th year students under the counseling of the project's vocational counselor and the High School counselor develop a course schedule as a guide for selection of appropriate courses for the following years. Each year thereafter the vocational counselor meets with students in group and/or individual sessions to re-evaluate progression toward career goals.

   The Vocational Counselor was also charged with the duties of coordinating the activities of the academic teachers in implementing the objectives of the Career Education program, supplying teachers with career related materials, soliciting resource speakers and organizing field trips.

   Another assignment to the Vocational Counselor was the placement component. The counselor's duties were to provide a service to all exiting students in that referrals for employment or further education was provided all students.

Follow-up studies of the past year's exiting students were made in late spring of 1975.

D. Evaluation

The Third Party Evaluation component of the Career Education endeavors was delayed significantly by the U.S. Office of Education. This delay was due to the lateness of prepared guidelines disseminated to project directors. Those guidelines are an excellent effort to standardize third party evaluations of Career Education projects but left the programs wanting for sufficient time during the 1974-75 school year.

Under the guidelines a contract was awarded to Educational Planning and Evaluation Services of Magnolia, Arkansas. Following the guidelines to the extent possible, pre and post testing using suggested instruments in the guidelines began in December, 1974. The final draft of the Evaluation was completed in August, 1975, and may be found in this report.

E. Results

1. Formal Inservice Education was provided by the University of Arkansas on the Monticello High School campus for six hours of graduate credit enrolling 96 teachers and administrators of the project area schools.

2. Elementary students improved significantly in self awareness as measured by the third party evaluator.

3. Elementary students made a significant gain at the .05 level of probability in career knowledge.

4. 8th grade students attitudes toward their job future showed significant gains.

5. 8th grade students knowledge of information and career planning increased significantly.

6. 8th grade students showed significant increases in exploratory and planning experiences.

7. 8th grade students showed a significant gain in attitude toward career choice.

8. 9th grade students showed a significant increase in knowledge of construction processes.

9. An increase of 6% more students were given placement services over the previous year.

10. There were 41% more job preparation programs over the previous year.

11. Inservice Training participants showed a significant, .01 level, increase in career education knowledge.

12. Community questionnaires showed a 76% positive response to Career Education activities.

13. Successful programs in the 11th and 12th grade General Cooperative Education course and the 10th grade Manufacturing course were evident.

F. Conclusions and Recommendations

Parents, students, teachers, and the community have shown significant progress and acceptance of the Career Education program. There are better student attitudes evident in the schools which may reflect Career Education efforts.

Community support is more evident as a result of having resource persons from the community visit the schools and host field trips.

Teachers can increase their knowledge of careers and career education principles through inservice programs.

Elementary teachers are more willing to devote time to Career Education acitivites than are those teachers who are teaching departmentalized courses in middle school, junior high and high school. Concerted efforts must be made to develop Career Education in the upper grades.

Area school administrators are developing positive attitudes concerning Career Education as a result of site visits to Monticello Schools and visits in their own schools by project staff.

It is recommended that the Career Education program be continued and further expanded beyond the project area.

SECTION TWO

EDUCATIONAL PLANNING AND EVALUATION SERVICES
P. O. Box 689
Magnolia, Arkansas 71753

PROGRAM DESCRIPTION

I. IDENTIFICATION INFORMATION

A. Program Number: 194100-004 Date: February 26, 1975

B. Evaluator: Dean C. Andrew

C. Name of Local Education Agency: Monticello School District

D. Person Who Can Be Contacted: Mr. Fred Robinson
P. O. Box 517
Monticello, Arkansas 71655
501-367-6862

E. Title of Program: An Exemplary Career Education Program for Southeast Arkansas

II. BACKGROUND INFORMATION

Southeast Arkansas is characterized as a rural area with limited economic, health, educational, social, and cultural resources. Census data indicates that approximately 35-40 percent of the residents are black with the economic level of these people being far below the national average. The economy of the area is changing with the introduction of industries, such as the carpet making and boat building industries, and the mechanization of the timber and agricultural industry. Because of these factors it seemed imperative to the administrative staff of the Monticello School District that the educational needs of the students were not being met, and especially those needs of the disadvantaged students. The vocational programs were limited to home economics, agricultural, and business education. The educational offerings were geared to the college bound, and counseling was done on a limited basis if at all. Thus, when the career education concept began to emerge, and funds became available for grants to initiate career education programs under Section 142(C) of Part D of

Public Law 90-576, the administrative staff of the Monticello School District felt it was the appropriate time to seek supplemental funds to launch a career education program. An application for a grant of $126,546 was submitted to the United States Office of Education on December 5, 1972. This application was approved and a grant for $125,413 per year was awarded to implement a career education project for Southeast Arkansas. The grant request was for a three-year period from June 1, 1973 to May 31, 1976. The first-year funds were allocated and the project began on June 1, 1973. The purpose of this program description is to describe the planned project and to present an evaluation plan for assessing the extent that the program achieves its objectives.

III. IDENTIFICATION AND DESCRIPTION OF PROGRAM VARIABLES

A. The personnel variables in the program are the students, teachers, administrators, counselors, career awareness coordinator, and community contact worker. They will be described below.

1. Students. There is a total of 1,561 students involved in the Monticello Career Education Program. Students at every educational level are participating in the program. Table 1 provides a description of the students.

Table 1: THE COMPOSITION OF THE STUDENTS INVOLVED IN THE MONTICELLO CAREER EDUCATION PROGRAM

Grade or Course	Sex				Race				TOTAL
	Male		Female		Black		White		
	No.	%	No.	%	No.	%	No.	%	
Kindergarten	58	44	73	56	46	35	85	65	131
1	79	51	76	49	45	29	110	71	155
2	86	51	84	49	59	35	111	65	170
3	63	49	65	51	63	49	65	51	128
4	102	58	75	42	59	33	118	67	177
5	103	57	80	43	53	29	130	71	183
6	84	50	85	50	50	30	119	70	169
7	96	50	95	50	60	31	131	69	191
8th Career Orientation	40	44	51	56	28	31	63	69	91
9th World of Construction	86	97	3	3	33	37	56	63	89
10th World of Manufacturing	41	100	0	0	13	32	28	68	41
11, 12 General Coop Education	17	47	19	53	4	11	32	89	36
TOTAL	855	55	706	45	513	33	1048	67	1,561

2. Teachers. There are a total of 57 teachers involved in the career education program. Fifty-one of the teachers involved are in the career awareness component, grade K-7, while six teachers are involved in career orientation and career exploratory activities. The following table shows the sex, race, training, and experience distribution of the teachers involved in the program.

Table 2: THE COMPOSITION OF TEACHERS INVOLVED IN THE MONTICELLO CAREER EDUCATION PROGRAM

Grade or Subject	Total No. of Teachers	Sex				Race				Degree				Number Years of Experience
		Male		Female		Black		White		B.S.		M.S.		
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Kindergarten	3	-	--	3	100	-	--	3	100	3	100	-	--	Range 3½-6 Mean = 4.8
1	6	-	--	6	100	1	17	5	83	4	67	2	33	Range 2-15 Mean = 10
2	6	-	--	6	100	1	17	5	83	5	83	1	17	Range 6-30 Mean = 20
3	5	-	--	5	100	-	--	5	100	5	100	-	--	Range 4½-31 Mean = 16.3
4	7	-	--	7	100	2	29	5	71	6	86	1	14	Range 2-24 Mean = 10.4
5	6	-	--	6	100	1	17	5	83	5	83	1	17	Range 3-37 Mean = 13.1
6	6	1	17	5	83	2	33	4	67	5	83	1	17	Range 2-18 Mean = 9.3
Special Education	1	-	--	1	100	-	--	1	100	1	100	-	--	Mean = ½
7	11	6	54	5	46	3	27	8	73	10	91	1	9	Mean = 6.9
8th Career Orientation	2	1	50	1	50	1	50	1	50	1	50	1	50	Mean = 26.6
9th World of Constraction	1	1	100	-	--	-	--	1	100	1	100	-	--	Mean = 10.0
10th World of Manufacturing	1	1	100	-	--	-	--	1	100	-	--	1	100	Mean = 29
11, 12 GCE	2	2	100	-	--	-	--	2	100	1	50	1	50	Mean = 5.0
TOTAL	57	12	21	45	79	11	19	46	81	47	82	10	18	Mean = 11.6

3. Administrators. In addition to the project director, Mr. Fred Robinson, there are four building principals involved in the program. All of the administrators have earned their master's degree, and all have considerable educational experience. Information about the administrators is presented below.

Table 3: THE COMPOSITION OF THE ADMINISTRATORS INVOLVED IN THE MONTICELLO CAREER EDUCATION PROGRAM

Name	Position	Sex		Race		Degree	Years of Experience
		M	F	B	W		
Tommy Matthews	Principal, Grades 1-4	X			X	MS	15
Vaughn McGaha	Principal, Grades 5-6	X			X	MS	15
Larry Johnston	Principal, Grades 7-9	X			X	MS	14
Barry Hall	Principal, Grades 10-11	X			X	MS + 21 hrs.	10
Fred Robinson	Program Director	X			X	MS	6

4. Counselors. One counselor, Mr. James Allen, participates in the program. He works at the junior and senior high schools and also coordinates the placement program. Mr. Allen is a white male with a master's degree and seven years of educational experience.

5. Other Specialists. Other educational specialists involved in the career education program are a career awareness coordinator and a general cooperative education coordinator. The characteristics of these specialists are presented in Table 4.

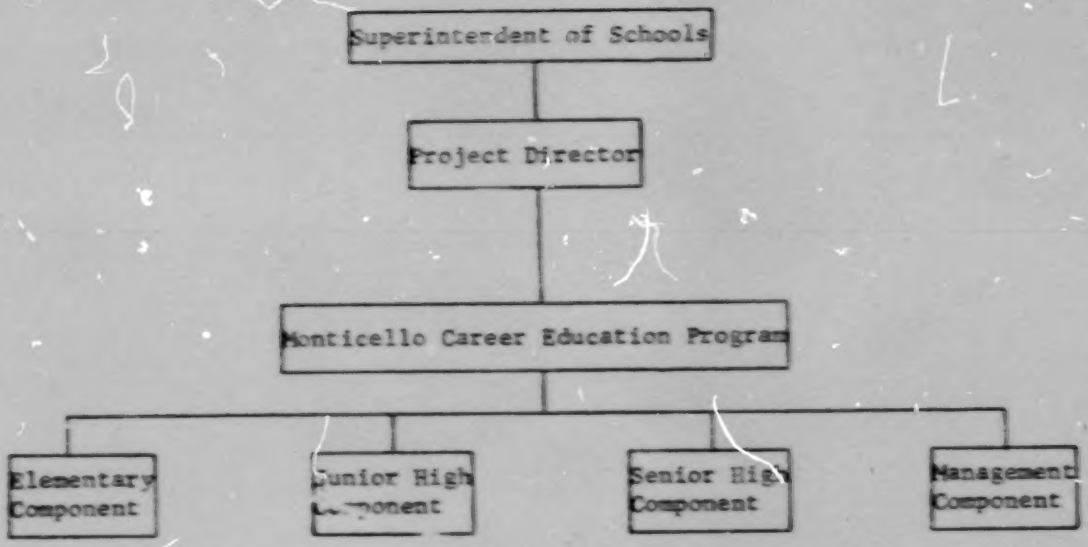
Table 4: THE CHARACTERISTICS OF OTHER SPECIALISTS INVOLVED IN THE MONTICELLO CAREER EDUCATION PROGRAM

Name	Position	Sex		Race		Degree	Years of Experience
		M	F	B	W		
Dale Castellaw	Career Awareness Coordinator		X		X	MSE+33	29
Joe Chambers	GCE Coordinator	X			X	MED	4

B. The process variables in the Monticello Career Education Program are described below.

1. Organization. The overall administration of the project is under the direction of the superintendent of schools of the Monticello School District. The project director, Mr. Fred Robinson, is directly responsible for the administration of the project. He will be assisted by a career awareness coordinator, a counselor, and one general cooperative education coordinator.

The program is organized into four components: (a) Elementary Component, (b) Junior High Component, (c) Senior High Component, and (d) a Management Component. The figure on the next page presents the organizational structure of the program.



2. Program Activities. The Career Education Program activities will be described by components.

a. Elementary Component - Grades K-7

The activities implemented at this level focus primarily on increasing the students' career awareness and developing wholesome attitudes toward work.

(1) Presenting Career Information

In grades 1-3 career information has been identified and correlated with information found in the students' basic textbook. In grades 4-7 career awareness units have been developed and are primarily correlated with the social studies textbook. The career concepts in the units are presented through songs, poetry, stories, discussion, and role playing. In addition, a variety of audio visual presentations of career education concepts are used. These audio

visual presentations include the use of films, filmstrips, movies, pictures, posters, concrete objectives, bulletin boards, records, tapes, etc.

(2) Instructional Units on Human Values

Teachers in grades K-6 use the Human Values in Education Series published by Stech-Vaughn. This human values material is used as a supplement to the reading program. The usual procedure in teaching the material is to present to the class a story (involving values) and then have a discussion concerning it. Various types of activities are then conducted to reinforce the values taught in the story.

(3) Correlated Field Trips

As the students study and learn about various occupations, field trips are scheduled so that they might view a person working in the occupation and through interviews obtain first-hand information about careers. The career awareness coordinator worker arranges for the field trips upon the teacher's request.

(4) Correlated Resource Speakers

Workers are brought into the classroom to tell the students about their careers. These speakers are invited to the classroom as the students are studying their career or a related career.

b. Junior High School Component Activities - Grades 8-9

(1) Vocational Orientation at Eighth Grade Level

A vocational orientation course for all eighth grade students has been implemented. During the school year, the students will rotate between two instructors for a period of nine weeks with each teacher. Each teacher will be responsible to teach career information from seven or eight occupational clusters so that by the end of the year each student will have been exposed to career information on the 15 job clusters established by HEW. A Career Orientation Guide, published by the Arkansas Department of Education is being used as the main resource material for the course. Career concepts are presented through stories, role playing, discussions, reports, and use of various audio-visual mediums.

(2) Resource Speakers

The teachers in the career orientation classes bring speakers into their classes to tell students about their careers. Students have an opportunity to ask questions and obtain first-hand information about jobs. Regular subject matter teachers are also encouraged to use resource speakers, especially to relate career opportunities to the subject matter being taught. The counselor assists the teachers in scheduling the resource speakers.

(3) Field Trips

As students study the various career clusters in the career orientation class, field trips are scheduled, whenever possible, to see persons working in the jobs being studied. This provides the students with an opportunity to see as well as hear about the career. The counselor assists the teachers in scheduling the field trips.

(4) Vocational Exploratory Course - Grade 9

Ninth grade boys may take an industrial exploratory course called The World of Construction, and ninth grade girls may take a home economics course. The former course was developed through a research and development grant from the United States Office of Education and emphasizes broad concepts and principles of contemporary industrial technology.

(5) Counseling

A counselor is employed to work part time in the junior high school. He assists the teachers as mentioned about in scheduling field trips and resource speakers. He also assists teachers by giving them career information.

The counselor also works with individual students in career counseling and with groups of students in discussing career opportunities and career requirements. The school district has a variety of audio-

visual resources on career education. The counselor promotes the use of this material with teachers and students.

c. Senior High School Component Activities - Grades 10-12

(1) Vocational Exploratory Course

During the current year, a course is taught called The World of Manufacturing. Boys in grade 10 may choose to enroll in this course. It also emphasizes broad concepts and principles of contemporary industrial technology with a focus on vocational exploration.

(2) Job Preparation Training

The school district has just completed the construction of a vocational-education building where several job preparation training programs are offered. While funds from this grant are not involved in these activities, they are mentioned here so as an overall picture of the school district's career education program can be visualized. The job preparation areas being offered are auto mechanics, building trades, health occupations, metal trades, textiles, and welding.

(3) General Cooperative Education

In the eleventh and twelfth grade a General Cooperative Education Program is operated. This program includes students in a general cooperative course. The students enrolled in these activities work one-half day and go to school one-half day in work related courses.

While the students are in school, they have an opportunity to learn about careers through a variety of materials and through various audio-visual presentations including films, filmstrips, records, tapes, and etc. Shadowing experiences are also given to these students and field trips are taken to various businesses, industries, and area vocational schools.

(4) Counseling and Placement Activities

The counselor spends part of his time in the high school. He assists the teachers by providing them with resource materials on careers and career information. He works with individual students in career counseling and with groups of students in discussing career opportunities and career requirements. The counselor also assists students in finding part-time jobs if they desire or full-time jobs when they leave school. To obtain information

about available jobs, the counselor contacts the United States Employment Service, and various employers in the community, and in the surrounding area. These services are also provided to the small school districts surrounding the Monticello School District.

d. Management Component Activities

The management component activities consist primarily of the conduction of in-service training activities needed to implement and operate the career education program. In-service training involved staff members from the Monticello School District and from area schools. The following types of staff training were done.

(1) An August, 1974 workshop was held involving elementary and secondary teachers. The content of this workshop revolved around the reason for career education and activities to teach career education concepts.

(2) A year long graduate course in career education was taught to teachers participating in the project. Graduate credit was given to enrollees and both elementary and secondary teachers were involved.

(3) A March, 1975 workshop will be held for both elementary and secondary teachers. The content of this workshop will focus on attitudes and values.

(4) Extensive in-service training is accomplished on an individual and small group basis. The career awareness coordinator is frequently meeting with teachers and assisting them with materials, activities, and in the solution of problems.

3. Facilities. The program activities in the Career Education Project are conducted in the regular school buildings of the district. Field trips and community activities are conducted in the various business and industrial firms in the city of Monticello or in the offices of local, state, or federal agencies.

C. The behavioral variables of concern in the Career Education Program are in both the cognitive and affective domains. The cognitive variables include: (1) the increase of students' self awareness, knowledge about work, decision-making skills, work habits, job skills, and opportunities for placement; (2) demonstration of knowledge by the school administration of finances expended on career education program; and (3) the increase of teachers' knowledge of career education.

The affective variables of concern include: (1) the increase of students' self-concepts, personal interests and values toward work; and (2) community persons involved in the program will respond positively toward the program.

IV. PROGRAM OBJECTIVES

A. Elementary Component Objectives

1. The students in grades 3 and 6 participating in the Career Education Program will increase their self-awareness as indicated by:

   a. their ability to describe their own interests and values as measured by a locally developed test. It is expected that the mean score of the group will be 70 percent of the possible score; and

   b. an increase in their positive attitude toward themselves as measured by the Coopersmith Self-Esteem Inventory. It is expected that the post-test score will show a statistically significant gain at the level of .05 over the pretest score.

2. The students in grades 3 and 6 participating in the Career Education Program will increase their awareness of and knowledge about work as indicated by:

   a. an increase in their knowledge regarding the major duties and required abilities of different types of paid and unpaid work as measured by the Career Education Questionmaire. It is expected that the post test will show a statistically significant gain at the level of .05 over the pretest score;

   b. an increase in their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work as measured by the Career Education Questionnaire. It is expected that the post test

will show a statistically significant gain at the .05 level over the pretest; and

c. an increase in their knowledge of entry requirements for major types of paid and unpaid work as measured by the Career Education Questionnaire. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

B. Junior High Component Objectives

1. The students in grades 8 and 9 participating in the Career Education Program will increase in self-awareness as indicated by:

a. an increase in their positive attitude toward themselves as measured by the Assessment Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest; and

b. an increase in their recognition that social, economic, educational, and cultural forces influence their development as measured by the Career Development Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

2. The students in grades 8 and 9 participating in the Career Education Program will increase their awareness of and knowledge about work as indicated by:

a. an increase in their knowledge regarding the major duties and required abilities of different types of paid and unpaid work as measured by the Assessment of Career

Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

b. an increase in their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

c. an increase in their knowledge of entry requirements for major types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the level .05 over the pretest;

d. an increase in their knowlege of the impact of social and technological change in paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest; and

e. an increase in their knowledge of the important factors that affect work success and satisfaction as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

3. The students in grades 8 and 9 participating in the Career Education Program will increase their decision-making skills as indicated by:

   a. an increase in their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

   b. an increase in their personal interests and values to types of paid and unpaid work and their life styles as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

   c. an increase in their ability to identify, locate, and utilize sources of information to solve career decision-making problems as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

   d. an increase in their knowledge of the steps to be taken and the factors to be considered in career planning as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest; and

e. an increase in their active involvement in career decision making as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

4. The students in grades 8 and 9 participating in the Career Education Program will improve their work habits as indicated by: their improved attitudes and feelings toward making a career choice and entering the world of work as measured by the attitude scale of the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

5. The students in grade 9 in the World of Construction course will increase in job preparation skills as indicated by an increase in their knowledge of construction processes as measured by publisher tests. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

C. High School Component Objectives

1. The students in GCE and in grade 12 participating in the Career Education Program will increase their awareness of and knowledge about work as indicated by:

a. an increase in their knowledge regarding the major duties and required abilities of different types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

b. an increase in their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

c. an increase in their knowledge of entry requirements for major types of paid and unpaid work as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the level of .05 over the pretest;

d. an increase in their knowledge of the impact of social and technological changes in paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest; and

e. an increase in their knowledge of the important factors that affect work success and satisfaction as measured by the Career Maturity Inventory. It is expected that the post test will show a gain at the .05 level over the pretest.

2. The students in OGE and grade 12 participating in the Career Education Program will increase their career decision making skills as indicated by:

a. an increase in their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

b. an increase in their ability to relate their personal interests and values to types of paid and unpaid work and their associated life styles as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

c. an increase in their ability to identify, locate, and utilize sources of information to solve career decision making problems as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

d. an increase in their knowledge of the steps to be taken and the factors to be considered in career planning as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest; and

e. an increase in their active involvement in career decision making as measured by the Assessment of Career Development. It is expected that post test will show a statistically significant gain at the .05 level over the pretest.

3. The students in GCE and grade 12 participating in the Career Education Program will improve their work habits as indicated by their improved attitudes and feelings toward making a career choice and entering the world of work as measured by the attitude scale of the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

4. Students in grade 12 will be placed in further education or occupations as indicated by the fact that:

   a. a greater number of students in grade 12 will be placed in further education during the 1974-75 year than during the 1973-74 year as indicated by placement records, and

   b. a greater number of students in grade 12 will be placed in paid and unpaid occupations during the 1974-75 school year than was placed during the 1973-74 school year as indicated by placement records.

5. The students in grade 10 participating in the World of Manufacturing course will increase their job preparation skills as indicated by their increased knowledge of manufacturing processes as measured by publisher tests. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

D. Management Component Objectives

1. The school administration will increase the number and type of job preparation opportunities during the 1974-75 school year. It is expected that there will be a 10 percent greater number and more types of job preparation programs than were offered during the 1973-74 school year as indicated by a summary report on available job preparation programs.
2. The school administration will demonstrate knowledge of the finances expended on the Career Education Program that came from Section 142(C) of Part D of Public Law 90-576 as indicated by an expenditure report containing data on money expended by components.
3. The teachers involved in the Career Education Program will increase their knowledge of career education as indicated by in-service training tests. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.
4. The resource speakers and hosts of field trips will respond positively to the Career Education Program as indicated by their responses on a feedback questionnaire. It is expected that 70 percent of the responses will be positive.

V. PLANNED EVALUATION DESIGN

The evaluation plan is designed to answer the questions: (1) To what extent do students increase their self awareness, knowledge about work, decision-making skills, work habits, and job skills? (2) To

what extent are students placed in part-time and full-time work? (3) Can teachers increase their knowledge of career education? (4) To what extent can students increase their interests and values toward work, and (5) Do community people involved in the program respond positively toward it?

The evaluation design is primarily a formative pre-post test design in which data will be collected and compared against selected predetermined standards. The standards were established on the basis of past baseline data and/or through discussion with project personnel.

SECTION THREE

EVALUATION REPORT
on
An Exemplary Career Education Project
for Southeast Arkansas

Monticello School District
Monticello, Arkansas

Prepared by

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August 18, 1975

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I. BACKGROUND INFORMATION

Southeast Arkansas is characterized as a rural area with limited economic, health, educational, social, and cultural resources. Census data indicates that approximately 35-40 percent of the residents are black with the economic level of these people being far below the national average. The economy of the area is changing with the introduction of industries, such as the carpet making and boat building industries, and the mechanization of the timber and agricultural industry. Because of these factors it seemed obvious to the administrative staff of the Monticello School District that the educational needs of the students were not being met, and especially those needs of the disadvantaged students. The vocational programs were limited to home economics, agricultural, and business education. The educational offerings were geared to the college bound, and counseling was done on a limited basis if at all. Thus, when the career education concept began to emerge, and funds became available for grants to initiate career education programs under Section 142 (C) of Part D of Public Law 90-576, the administrative staff of the Monticello School District felt it was the appropriate time to seek supplemental funds to launch a career education program. An application for a grant of $126,546 was submitted to the United States Office of Education on December 5, 1972. This application was approved and a grant for $125,413 per year was awarded to implement a career education project for Southeast Arkansas. The grant request was for a three-year period from June 1, 1973 to May 31, 1976. The first-year funds were allocated and the project began on June 1, 1973. The purpose of this evaluation report is to present the evaluation findings showing the extent that the program achieved its objectives.

II. IDENTIFICATION AND DESCRIPTION OF PROGRAM VARIABLES

A. The personnel variables in the program were the students, teachers, administrators, counselors, career awareness coordinator, and a general cooperative education coordinator. They will be described below.

1. Students. There was a total of 1,561 students involved in the Monticello Career Education Program. Students at every educational level participated in the program. Table 1 provides a description of the students.

Table 1: THE COMPOSITION OF THE STUDENTS INVOLVED IN THE MONTICELLO CAREER EDUCATION PROGRAM

	Sex				Race				
	Male		Female		Black		White		
Grade or Course	No.	%	No.	%	No.	%	No.	%	Total
Kindergarten	58	44	73	56	46	35	85	65	131
1	79	51	76	49	45	29	110	71	155
2	86	51	84	49	59	35	111	65	170
3	63	49	65	51	63	49	54	51	128
4	102	58	75	42	59	33	118	67	177
5	103	57	80	43	53	29	130	71	183
6	84	50	85	50	50	30	119	70	169
7	96	50	95	50	60	31	131	69	191
8th Career Orientation	40	44	51	56	28	31	63	69	91
9th World of Construction	86	97	3	3	33	37	56	63	89
10th World of Manufacturing	41	100	0	0	13	32	28	68	41
11, 12 General Coop Education	17	47	19	53	4	11	32	89	36
Total	855	55	706	45	513	33	1,048	67	1,561

2. Teachers. There was a total of 57 teachers involved in the career education program. Fifty-one of the teachers involved were in the career awareness component, grade K-7, while six teachers were involved in career orientation and career exploratory activities. The following table shows the sex, race, training, and experience distribution of the teachers involved in the program.

Table 2: THE COMPOSITION OF TEACHERS INVOLVED IN THE MONTICELLO CAREER EDUCATION PROGRAM

Grade or Subject	Total No. of Teachers	Sex				Race				Degree				Number Years of Experience
		Male		Female		Black		White		B.S.		M.S.		
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Kindergarten	3	--	--	3	100	--	--	3	100	3	100	--	--	Range 3½-6 Mean = 4.8
1	6	--	--	6	100	1	17	5	83	4	67	2	33	Range 2-15 Mean = 10
2	6	--	--	6	100	1	17	5	83	5	83	1	17	Range 6-30 Mean = 20
3	5	--	--	5	100	--	--	5	100	5	100	--	--	Range 4½ -31 Mean = 16.3
4	7	--	--	7	100	2	29	5	71	6	86	1	14	Range 2-24 Mean = 10.4
5	6	--	--	6	100	1	17	5	83	5	83	1	17	Range 3-37 Mean = 13.1
6	6	1	17	5	83	2	33	4	67	5	83	1	17	Range 2-18 Mean = 9.3
Special Education	1	--	--	1	100	--	--	1	100	1	100	--	--	Mean -½
7	11	6	54	5	46	3	27	8	73	10	91	1	9	Mean = 6.9
8th Career Orientation	2	1	50	1	50	1	50	1	50	1	50	1	50	Mean = 26.6
9th World of Construction	1	1	100	--	--	--	--	1	100	1	100	--	--	Mean = 10.0
10th World of Manufacturing	1	1	100	--	--	--	--	1	100	--	--	1	100	Mean = 29
11, 12, GCE	2	2	100	--	--	--	--	2	100	1	50	1	50	Mean = 5.0
Total	57	12	21	45	79	11	19	46	81	47	82	10	18	Mean = 11.6

3. Administrators. In addition to the project director, Mr. Fred Robinson, there were four building principals involved in the program. All of the administrators have earned their master's degree, and all have considerable educational experience. Information about the administrators is presented below.

Table 3: THE COMPOSITION OF THE ADMINISTRATORS INVOLVED IN THE MONTICELLO CAREER EDUCATION PROGRAM

Name	Position	Sex		Race		Degree	Years of Experience
		M	F	B	W		
Tommy Matthews	Principal, Grades 1-4	X			X	MS	15
Vaughn McGaha	Principal, Grades 5-6	X			X	MS	15
Larry Johnston	Principal, Grades 7-9	X			X	MS	14
Barry Hall	Principal, Grades 10-11	X			X	MS + 21 Hrs	10
Fred Robinson	Program Director	X			X	MS	6

4. Counselors. One counselor, Mr. James Allen, participated in the program. He worked at the junior and senior high schools and also coordinated the placement program. Mr. Allen is a white male with a master's degree and seven years of educational experience.

5. Other Specialists. Other educational specialists involved in the career education program were a career awareness coordinator and a general cooperative education coordinator. The characteristics of these specialists are presented in Table 4.

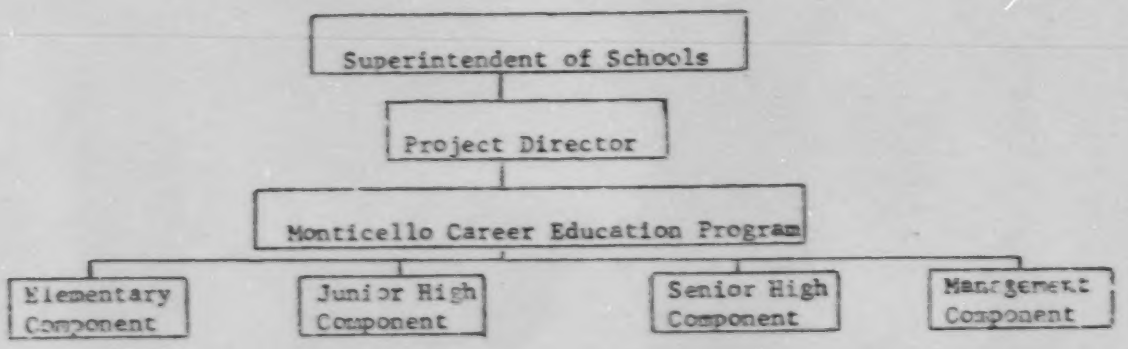
Table 4: THE CHARACTERISTICS OF OTHER SPECIALISTS INVOLVED IN THE MONTICELLO CAREER EDUCATION PROGRAM

Name	Position	Sex		Race		Degree	Years of Experience
		M	F	B	W		
Dale Castellaw	Career Awareness Coordinator		X		X	MSE+33	29
Joe Chambers	GCE Coordinator	X			X	MED	4

B. The process variables in the Monticello career Education Program are described below.

1. Organization. The overall administration of the project was under the direction of the superintendent of schools of the Monticello School District. The project director, Mr. Fred Robinson, was directly responsible for the administration of the project. He was assisted by a career awareness coordinator, a counselor, and one general cooperative education coordinator.

The program was organized into four components: (a) Elementary Component, (b) Junior High Component, (c) Senior High Component, and (d) a Management Component. The following figure presents the organizational structure of the program.



2. Program Activities. The Career Education Program activities will be described by components.

a. Elementary Component - Grades K-7

The activities implemented at this level focused primarily on increasing the students' career awareness and developing wholesome attitudes toward work.

(1) Presenting Career Information

In grades 1-3 career information was identified and correlated with information found in the students' basic textbook. In grades 4-7 career awareness units were developed and were primarily correlated with the social studies textbook. The career concepts in the units were presented through songs, poetry, stories, discussion, and role playing. In addition, a variety of audio visual presentations of career education concepts were used. These audio visual presentations included the use of films, filmstrips, movies, pictures, posters, concrete objectives, bulletin boards, records, tapes, etc.

The following units were developed and taught.

Grade	Unit
Kindergarten	The Community Home and Family The Farm
First	What I'd Like to Be Friendship Family Occupations
Second	Developing Attitudes Safety Policeman Courtesy Community Helpers
Third	Developing Attitudes Community Helper - The Veterinarian
Fourth	Attitudes and Values When I Grow Up Ecology - How I Can Help Different Cultures
Fifth	Textile Industry - Local Values
Sixth	Attitudes
Seventh	Job Awareness
Special Education	Developing Attitudes Family Workers Neighborhood Workers

(2) Instructional Units on Human Values

Teachers in grades K-6 used the Human Values in Education Series published by Stech-Vaughn. This human values material was used as a supplement to the reading program. The usual procedure in teaching the material was to present to the class a story (involving values) and then have a discussion concerning it. Various types of activities were then conducted to reinforce the values taught in the story.

(3) Correlated Field Trips

As the students studied and learned about various occupations, field trips were scheduled so that they might view a person working in the occupation and through interviews obtain first-hand information about careers. The career awareness coordinator worker arranged for the field trips upon the teacher's request.

(4) Correlated Resource Speakers

Workers were brought into the classroom to tell the students about their careers. These speakers were invited to the classroom as the students were studying their career or a related career.

b. Junior High School Component Activities - Grades 8-9

(1) Vocational Orientation at Eighth Grade Level

A vocational orientation course for all eighth grade students was implemented. During the school year, the students rotated between two instructors for a period of nine weeks with each teacher. Each teacher was responsible for teaching career information from seven or eight occupational clusters so that by the end of the year each student had been exposed to career information on the 15 job clusters established by HEW. A Career Orientation Guide, published by the Arkansas Department of Education was used as the main resource material for the course. Career concepts were presented through stories, role playing, discussions, reports, and use of various audio-visual mediums.

(2) Resource Speakers

The teachers in the career orientation classes brought speakers into their classes to tell students about their careers. Students had an opportunity to ask questions and obtain first-hand information about jobs. Regular subject matter teachers were also encouraged to use resource speakers, especially to relate career opportunities to the subject matter being taught. The counselor assisted the teachers in scheduling the resource speakers.

(3) Field Trips

As students studied the various career clusters in the career orientation class, field trips were scheduled, whenever possible, to see persons working in the jobs being studied. This provided the students with an opportunity to see as well as hear about the career. The counselor assisted the teachers in scheduling the field trips.

(4) Vocational Exploratory Course - Grade 9

Ninth grade boys took an industrial exploratory course called The World of Construction, and ninth grade girls took a home economics course. The former course was developed through a research and development grant from the United States Office of Education and emphasized broad concepts and principles of contemporary industrial technology.

(5) Counseling

A counselor was employed to work part time in the junior high school. He assisted the teachers as mentioned about in scheduling field trips and resource speakers. He also assisted teachers by giving them career information.

The counselor also worked with individual students in career counseling and with groups of students in discussing career opportunities and career requirements. The school district had a variety of audio-visual resources on career education. The counselor promoted the use of this material with teachers and students.

c. Senior High School Component Activities - Grades 10-12

(1) Vocational Exploratory Course

During the current year, a course was taught called The World of Manufacturing. Boys in grade 10 may have chosen to enroll in this course. It also emphasized broad concepts and principles of contemporary industrial technology with a focus on vocational exploration.

(2) Job Preparation Training

The school district had completed the construction of a vocational-education building where several job

preparation training programs were offered. While funds from this grant were not involved in these activities, they are mentioned here so an overall picture of the school district's career education program can be visualized. The job preparation areas that were offered were auto mechanics, building trades, health occupations, metal trades, textiles, and welding.

(3) General Cooperative Education

In the eleventh and twelfth grade a General Cooperative Education Program was operated. This program included students in a general cooperative course. The students enrolled in these activities worked one-half day and went to school one-half day in work related courses.

While the students were in school, they had an opportunity to learn about careers through a variety of materials and through various audio-visual presentations including films, filmstrips, records, tapes, etc. Shadowing experiences were also given to these students and field trips were taken to various businesses, industries, and area vocational schools.

(4) Counseling and Placement Activities

The couselor spent part of his time in the high school. He assisted the teachers by providing them with resource materials on careers and career information. He worked with individual students in career counseling and with groups of students in discussing career opportunities and career requirements. The counselor also assisted students in finding part-time jobs if they desired or full-time jobs when they left school. To obtain information about available jobs, the counselor contacted the United States Employment Service and various employers in the community and in the surrounding area. These services were also provided to the small school districts surrounding the Monticello School District.

d. Management Component Activities

The management component activities consisted primarily of conducting in-service training

activities needed to implement and operate the career education program. In-service training involved staff members from the Monticello School District and from area schools. The following types of staff training were done.

(1) An August, 1974 workshop was held involving elementary and secondary teachers. The content of this workshop revolved around the reason for career education and activities to teach career education concepts.

(2) A year long graduate course in career education was taught to teachers participating in the project. Graduate credit was given to enrollees and both elementary and secondary teachers were involved.

(3) A March, 1975 workshop was held for both elementary and secondary teachers. The content of this workshop focused on attitudes and values.

(4) Extensive in-service training was accomplished on an individual and small group basis. The career awareness coordinator frequently met with teachers and assisted them with materials, activities, and in the solution of problems.

3. Facilities. The program activities in the Career Education Project were conducted in the regular school buildings of the district. Field trips and community activities were conducted in the various business and industrial firms in the city of Monticello or in the offices of local, state, or federal agencies.

C. The behavioral variables of concern in the Career Education Program were in both the cognitive and affective domains. The cognitive variables included: (1) the increase of students' self-awareness, knowledge about work, decision-making skills, work habits, job skills, and opportunities for placement; (2) demonstration of knowledge by the school administration of finances expended on career education program; and (3) the increase of teachers' knowledge of career education.

The affective variables of concern included: (1) the increase of students' self-concepts, personal interests and values toward work; and (2) positive response toward the program from community persons involved.

III. The objectives will be stated in Section V as the evaluation findings are presented. For this reason, they will not be repeated here.

IV. PLANNED EVALUATION DESIGN

The evaluation plan was designed to answer the questions: (1) To what extent do students increase their self awareness, knowledge about work, decision-making skills, work habits, and job skills? (2) To what extent are students placed in part-time and full-time work? (3) Can teachers increase their knowledge of career education? (4) To what extent can students increase their interests and values toward work, and (5) Do community people involved in the program respond positively toward it?

The evaluation design was primarily a formative pre-post test design in which data was collected and compared against selected predetermined standards. The standards were established on the basis of past baseline data and/or through discussion with project personnel.

The evaluation design summary chart in the appendix contains the program objectives, measuring instruments, and data collection procedures.

V. EVALUATION FINDINGS

While the Career Education project included the Monticello school district and area schools around Monticello, the evaluation was conducted only on the program in the Monticello school district. The evaluation findings will be reported by components. In reporting the findings, the objectives will be stated and then the findings will be presented. This pattern will be followed for each objective.

A. Elementary Component

Objective 1: The students in grades 3 and 6 participating in the Career Education Program will increase their self-awareness as indicated by:

a. Their ability to describe their own interests and values as measured by a locally developed test. It is expected that the mean score of the group will be 70 percent of the possible score; and

b. An increase in their positive attitude toward themselves as measured by the Coopersmith Self-Esteem Inventory. It is expected that the post-test score will show a statistically significant gain at the level of .05 over the pretest score.

The first part of the objective was measured by administering a values test developed by the Education Achievement Corporation of Waco, Texas. This test consists of 36 statements to which the student must respond "yes," or "no" or "undecided." The test was given to all third and sixth grade students in May, 1975.

The last part of the objective was measured by administering the Coopersmith Self-Esteem Inventory as a pretest in December, 1974 and again as a post test in May, 1975. These tests were given to all third and sixth grade students. The reason that the pretest was given so late was because of the lateness of USOE in getting Draft Guidelines for the evaluation of career education programs in the hands of the project directors. When this was given to the project directors, it was stipulated that bids must be taken on evaluation contracts and this delayed the awarding of the contract, the development of the evaluation plan, and the administration of pretests. Because of these factors, some of the pretests for other objectives were not given before February, 1975. Interpretation of data needs to take into consideration these facts.

The data collected by administering the values test and the Coopersmith Self-Esteem Inventory are summarized in Tables 5 and 6.

Table 5: AN ANALYSIS OF THE SCORES MADE BY THIRD AND SIXTH GRADE STUDENTS ON A TEST CONCERNING THE VALUING APPROACH TO CAREER EDUCATION

Grade Level	N	Number of Possible Responses	Mean Score	Percent of Correct Responses
3	132	36	20.02	55.61
6	161	36	26.80	74.44
TOTAL	293	36	23.75	65.97

Table 6: THE GAINS MADE BY THIRD AND SIXTH GRADE STUDENTS PARTICIPATING IN THE CAREER EDUCATION PROGRAM ON THE COOPERSMITH SELF-ESTEEM INVENTORY

Grade	Pretest			Post Test			Correlation	Difference in Means	"t" Ratio
	N	Mean	SD	N	Mean	SD			
3	108	30.49	7.65	108	31.62	6.96	.55	1.13	1.67
6	149	31.42	7.41	149	32.11	8.10	.64	.69	1.27
TOTAL	257	31.04	7.50	257	31.91	7.62	.60	.87	2.06*

*Significant at the .05 level of confidence.

The information in Table 5 shows that the mean score of all the students on the "values" test was approximately 66 percent of the possible score. The mean score of the sixth grade students achieved the expected criterion but the mean score of the third grade students did not.

The data in Table 6 show that the gain made by the total group of students on the Self-Esteem Inventory was significant at the .05 level of confidence. This means that the gain would occur less than five times out of a 100 by chance and is a real gain and not a gain by chance. The expected criterion of the objective for the total group was achieved, even though it was not attained by students in grade 3 or grade 6 alone. When both groups are combined, the increase in number makes the gain significant. It should be noted that the gain was made with the participating students involved in only five months of program activities. It seems reasonable to assume that if the pretests had been given in September, greater gains would have been made.

Objective 2: The students in grades 3 and 6 participating in the Career Education Program will increase their awareness of and knowledge about work as indicated by:

a. an increase in their knowledge regarding the major duties and required abilities of different types of paid and unpaid work as measured by the Career Education Questionnaire. It is expected that the post test will show a statistically significant gain at the level of .05 over the pretest score;

b. an increase in their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work as measured by the Career Education Questionnaire. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest; and

c. an increase in their knowledge of entry requirements for major types of paid and unpaid work as measured by the Career Education Questionnaire. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

To measure the extent that third and sixth grade participating students increased their awareness of and knowledge about work, the Career Education Questionnaire (CEQ) was used. The K-3 questionnaire consists of 30 items, each containing a series of pictures depicting various types of workers. The student is asked different types of questions concerning the worker, and he places an X on the picture that shows the correct response. The fourth through sixth grade questionnaire contains 40 questions with 35 of the items being matching items and five of the items being multiple choice items. The test covers the cognitive areas outlined in the subparts a, b, c, of the objective, but only a single score is obtained. The Career Education questionnaire was developed by the Minnesota Research Coordinating Unit for Vocational Education at the University of Minnesota.

The Career Education Questionnaire was given as a pretest in December and again as a post test in May to all third and sixth grade students in the school. Approximately five months elapsed between the pre and post test. The reason for the short time has been explained in the introduction to test results for objective one. The results from administering the Career Education Questionnaire are shown in Table 7.

Table 7: THE GAINS MADE BY THE THIRD AND SIXTH GRADE STUDENTS PARTICIPATING IN THE CAREER EDUCATION PROGRAM ON THE CAREER EDUCATION QUESTIONNAIRE

	Pretest			Post Test				Difference	"t"
Grade	N	Mean	SD	N	Mean	SD	Correlation	in Means	Ratio
3	112	17.66	4.06	112	18.81	3.89	.55	1.15	3.21*
6	141	28.13	7.58	141	48.53	5.15	.64	20.40	41.39*

*Significant at the .01 level of confidence.

The data in Table 7 show that both groups of students made

B. Junior High Component

Objective 1: The students in grades 8 and 9 participating in the Career Education Program will increase in self-awareness as indicated by:

a. an increase in their positive attitude toward themselves as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest; and

b. an increase in their recognition that social, economic, educational, and cultural forces influence their development as measured by the Career Development Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

To measure Objective 1a, the Assessment of Career Development (ACD) was used. This is a new kind of guidance assessment instrument developed by the American College Testing Program and published by Houghton Mifflin Company. Unit 4 of the instrument is concerned with career planning activities, and items 37 and 38 of that unit are questions eliciting responses concerning the student's attitudes toward himself. These items were used to measure the extent that objective 1a was achieved.

The assessment instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. Thus, only three months elapsed between the pre and post test. The reason for this shortness of time was because of the lateness of USOE in getting Draft Guidelines for the evaluation of career education programs in the hands of the project directors. When this was given to the project directors, it was stipulated that bids must be taken on evaluation contracts and this delayed the awarding of the contract, the development of the evaluation plan, and the administration of pretests. Because of these factors, some of the pretests were not given before February, 1975. The students taking the assessment instrument for this objective were all eighth grade students enrolled in a second semester career orientation course and a sample of ninth grade students from all ninth grade students in the junior high school. The sample was chosen by obtaining a list of all the names of ninth grade students and numbering them beginning with number one up. It was decided that a 20 percent sample would be used. A table of random numbers was used to select the 35 students needed to constitute the 20 percent sample.

Tables 8 and 9 show the results of the students' responses on items 37 and 38.

Table 8: AN ANALYSIS OF THE PRE AND POST TEST RESPONSES OF A SAMPLE OF EIGHTH AND NINTH GRADE STUDENTS TO THE QUESTION "DO YOU FEEL YOU WILL BE ABLE TO COMPLETE THE NECESSARY STEPS FOR AT LEAST ONE OF THE JOBS?"

	Type and Number of Response						
	Yes		Not Sure		Probably Not		
Grade	Pretest	Post Test	Pretest	Post Test	Pretest	Post Test	X^2
8	47	41	19	25	10	8	1.42
9	20	19	14	9	1	2	1.07
TOTAL	67	60	33	34	11	10	.22

Table 9: AN ANALYSIS OF THE PRE AND POST TEST RESPONSES OF A SAMPLE OF EIGHTH AND NINTH GRADE STUDENTS TO THE QUESTION "WOULD YOU SAY THAT YOUR JOB FUTURE IS_____?"

	Type and Number of Response						
	Bright		Dark		Uncertain		
Grade	Pretest	Post Test	Pretest	Post Test	Pretest	Post Test	X^2
8	33	42	9	11	34	22	7.78*
9	21	19	3	4	11	7	.75
TOTAL	54	61	12	15	45	29	4.06

*Significant at .05 level of confidence.

The data in Table 8 indicate that there were not a significant change in the students' feelings toward their ability to complete the necessary steps for at least one of the jobs. This held true for both the eighth and ninth grade students.

The eighth grade students made a significant positive change in their attitudes toward their job future. The change for these students was significant at the .05 level. The ninth grade students did not make any significant change in their attitude toward their job future.

To measure Objective 1b, Scale C of the Career Development Inventory was used. This inventory was developed by Dr. Donald Super and his associates at Columbia University and is designed to measure the vocational maturity of adolescent boys and girls. Scale C contains 30 items and assesses the student's possession of actual occupational information and his knowledge of how to integrate personal and occupational information into educational and vocational decisions.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reasons for only three months elapsing between the pretest and post test is explained under objective number 1a of the junior high school component. The students taking the Career Development Inventory is the same group as described under objective 1a. The table below provides information on the results of the pre and post tests.

Table 10: THE GAINS MADE BY A SAMPLE OF EIGHTH AND NINTH GRADE STUDENTS ON THE CAREER DEVELOPMENT INVENTORY, SCALE C

Grade Level	Pretest			Post Test			Difference in Means	Correlation	"t" Ratio
	N	Mean	SD	N	Mean	SD			
8	67	11.42	5.11	67	11.24	5.17	-.18	.54	-.19
9	28	14.00	6.03	28	13.04	6.51	-.96	.58	-.87
TOTAL	96	12.18	5.50	95	11.77	5.62	-.41	.57	-.77

The data in the above table show that the students made no gain on Scale C of the Career Development Inventory. When the mean post test score of the total group (11.77) is compared with the tenth grade norm group provided by the test authors, the percentile rank is 15. This means that the mean score in Monticello School District would exceed 15 percent of the scores of the norm group. Eighty-five percent would exceed their mean score. It is not known whether the no gain made by the students on this test is due to: (1) shortness of time between pre and post test; (2) lack of occupational information and decision making skills of students; (3) test not measuring what program activities are focusing on; (4) ineffective program activities; or (5) a combination of these factors.

Objective 2: The students in grades 8 and 9 participating in the Career Education Program will increase their awareness of and knowledge about work as indicated by:

a. an increase in their knowledge regarding the major duties and required abilities of different types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

b. an increase in their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

c. an increase in their knowledge of entry requirements for major types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the level .05 over the pretest;

d. an increase in their knowledge of the impact of social and technological change in paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest; and

e. an increase in their knowledge of the important factors that affect work success and satisfaction as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

To measure the extent Objective 2a and 2b were achieved, the occupational characteristics subtest on the Assessment of Career Development Inventory was used. This Inventory has previously been described. This subtest focuses on: job duties; working conditions, work schedules, and job values associated with occupation; and worker attributes associated with specific occupations.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Junior High Component. The students taking the measuring instrument were all eighth grade students enrolled in a second semester career orientation course and a sample of ninth grade students from all the ninth grade students in the junior high school. The sampling technique was described under Objective One of the Junior High School Component.

The data in Table 11 show the pre and post test results on the occupational characteristics subscale of the Assessment of Career Development Inventory.

Table 11: THE GAIN MADE BY A SAMPLE OF EIGHTH AND NINTH GRADE STUDENTS ON THE OCCUPATIONAL CHARACTERISTICS SUBSCORE OF THE ASSESSMENT OF CAREER DEVELOPMENT

Grade Level	Pretest			Post Test			Difference in Means	"t" Ratio
	N	Mean	SD	N	Mean	SD		
8	76	24.95	9.34	77	25.55	9.66	.60	.39
9	35	31.89	9.60	30	31.37	10.05	-.52	-.21
TOTAL	111	27.13	9.42	107	27.18	9.77	.05	.04

The data in Table 11 show that eighth grade participants made a small numerical gain but the ninth grade students made a lower post test score than their pretest score. For the total group there was only a .05 raw score point gain. No gain was significant.

Objective 2c was measured by administering the Occupational Preparation Requirement subscale of the Assessment of Career Development Inventory. The ACD has previously been described. The subtest items were to determine the students' knowledge of the amount and type of training/education usually associated with various occupations.

The measuring instrument was given as a pretest in February 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Junior High Component. The students taking the measuring instrument were all eighth grade students enrolled in a second semester career orientation course and a sample of ninth grade students from all the ninth grade students in the junior high school. The sampling technique was described under Objective 1 of the Junior High School Component.

The data in Table 12 show the pre and post test results on the Occupational Preparation requirements subscale of the Assessment of Career Development Inventory.

Table 12: THE GAIN MADE BY A SAMPLE OF EIGHTH AND NINTH GRADE STUDENTS ON THE OCCUPATIONAL PREPARATION REQUIREMENTS SUBSCORE OF THE ASSESSMENT OF CAREER DEVELOPMENT

Grade Level	Pretest			Post Test			Difference in Means	"t" Ratio
	N	Mean	SD	N	Mean	SD		
8	76	8.05	3.37	77	8.14	3.96	.09	.15
9	35	10.37	3.94	30	10.53	3.88	.16	.16
TOTAL	111	8.78	3.55	107	8.81	3.93	.03	.06

The information in the above table shows that a slight but non-significant gain was made by the program participants on the Occupational Preparation Requirement subscale of the Assessment of Career Development Inventory.

To measure the extent that Objective 2d was achieved, the Career Planning Knowledge subtest of the Assessment of Career Development was used. The inventory has previously been described. This subtest contains a sampling of facts, concepts, and understandings useful in career planning as suggested by career development theory and guidance practice.

The measuring instrument was given as a pretest in February 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Junior High Component. The students taking the measuring instrument were all eighth grade students enrolled in a second semester Career Orientation course and a sample of ninth grade students from all the ninth grade students in the junior high school. The sampling technique was described under Objective 1 of the Junior High School Component.

The data in Table 13 show the pre and post test results on the Career Planning Knowledge subscale of the Assessment of Career Development Inventory.

Table 13: THE GAIN MADE BY A SAMPLE OF EIGHTH AND NINTH GRADE STUDENTS ON THE CAREER PLANNING KNOWLEDGE SUBSCALE OF THE ASSESSMENT OF CAREER DEVELOPMENT

Grade Level	Pretest			Post Test			Difference in Means	"t" Ratio
	N	Mean	SD	N	Mean	SD		
8	76	20.09	5.12	72	21.79	5.79	1.70	1.88
9	N/A			30	24.57	6.55		

The sample of ninth grade students did not take the pretest so the analysis is made on the eighth grade students only. The data show that the eighth grade participants made a gain of 1.70 raw score points. This gain was significant at the .10 level and approaching significance at the .05 level. This means that the gain made by the students would happen less than 10 times out of 100 by chance. It should be noted that the gain was made in only three months of time and it is the opinion of the evaluator that the .05 level of significance would have been achieved if the pretests had been given earlier in the school year.

The extent Objective 2e was achieved was determined by giving Part I - Knowing Yourself of the Career Maturity Inventory as a pre and post test. Part I of the Career Maturity Inventory is concerned with the student's self-appraisal knowledge.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Junior High Component. The student's taking the measuring instrument were all eighth grade students enrolled in a second semester career orientation course and a sample of ninth grade students from all the ninth grade students in the junior high school. The sampling technique was described under Objective 1 of the Junior High School Component.

The data in Table 14 show the pre and post test results on Part I - Knowing Yourself of the Career Maturity Inventory.

Table 14: THE GAIN MADE BY A SAMPLE OF EIGHTH AND NINTH GRADE STUDENTS ON THE SELF-APPRAISAL SCALE OF THE CAREER MATURITY INVENTORY

Grade Level	Pretest			Post Test			Difference in Means	r	"t" Ratio
	N	Mean	SD	N	Mean	SD			
8	32	8.00	4.33	32	8.47	4.30	.47	.79	.95
9	27	10.59	4.42	27	10.22	5.51	-.37	.73	-.50
TOTAL	59	9.20	4.49	59	9.27	4.88	.07	.76	.16

The information shows that the eighth grade students made a numerical but non-significant gain on the self-appraisal scale. The ninth grade students mean post test score was lower than their pretest score.

Objective 3: The students in grades 8 and 9 participating in the Career Education Program will increase their decision-making skills as indicated by:

a. an increase in their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

b. an increase in their personal interests and values to types of paid and unpaid work and their life styles as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

c. an increase in their ability to identify, locate, and utilize sources of information to solve career decision-making problems as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

d. an increase in their knowledge of the steps to be taken and the factors to be considered in career planning as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest; and

e. an increase in their active involvement in career decision making as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

To measure the extent that Objective 3a and 3b were achieved, Part I - Knowing Yourself and Part III - Choosing a Job of the Career Maturity Inventory were administered. Part I is concerned with the student's self-appraisal skills while Part III focuses on career goal selection decision-making skills.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Junior High Component. The students taking the measuring instrument were all eighth grade students enrolled in a second semester career orientation course and a sample of ninth grade students from all the ninth grade students in the junior high school. The sampling technique was described under Objective 1 of the Junior High School Component.

The data in Tables 15 and 16 show the pre and post test results on Part III of the Career Maturity Inventory.

Table 15: THE GAIN MADE BY A SAMPLE OF EIGHTH AND NINTH GRADE STUDENTS ON THE SELF-APPRAISAL SCALE OF THE CAREER MATURITY INVENTORY

Grade Level	Pretest			Post Test			Difference in Means	r	"t" Ratio
	N	Mean	SD	N	Mean	SD			
8	32	8.00	4.33	32	8.47	4.20	.47	.79	.95
9	27	10.59	4.42	27	10.22	5.51	-.37	.73	-.50
TOTAL	59	9.20	4.49	59	9.27	4.88	.07	.76	.16

The eighth grade students made a small but non-significant gain on the self-appraisal scale, while the ninth grade student's mean post test score was lower than their mean pretest score. This same trend was also noted on the goal selection part of the Career Maturity Inventory in Table 16.

Table 16: THE GAIN MADE BY A SAMPLE OF EIGHTH AND NINTH GRADE STUDENTS ON THE GOAL SELECTION SCALE OF THE CAREER MATURITY INVENTORY

Grade Level	Pretest			Post Test			Difference In Means	r	"t" Ratio
	N	Mean	SD	N	Mean	SD			
8	69	8.72	3.46	69	9.09	3.80	.37	.57	.90
9	28	11.39	3.97	28	11.21	4.54	-.18	.72	-.29
TOTAL	97	9.49	3.79	97	9.70	4.12	.21	.65	.62

Objectives 3c and 3e were measured by administering two subtests from the Assessment of Career Development Inventory. The Inventory was described under Objective 1 of the Junior High School Component. The subtests used in the measurement of the objectives were the Career Planning Knowledge subscale. The former subtest contains a sampling of facts, concepts, and understandings useful in career planning while the latter subtest is concerned with the extent of student involvement in exploratory and planning experiences available in the school and community both on a formal and informal basis.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Junior High Component. The students taking the measuring instrument were all eighth grade students enrolled in a second semester Career Orientation course and a sample of ninth grade students from all the ninth grade students in the junior high school. The sampling technique was described under Objective 1 of the Junior High School Component.

The data in Tables 17 and 18 show the pre and post test results on the Career Planning Knowledge and Career Planning Involvement Assessment of Career Development Inventory.

Table 17: THE GAIN MADE BY A SAMPLE OF EIGHTH AND NINTH GRADE STUDENTS ON THE CAREER PLANNING KNOWLEDGE SUBSCORE OF THE ASSESSMENT OF CAREER DEVELOPMENT

Grade	Pretest			Post Test			Difference	"t"
Level	N	Mean	SD	N	Mean	SD	in Means	Ratio
8	76	20.09	5.12	72	21.79	5.79	1.70	1.88
9	N/A	---	--	30	24.57	6.55	--	--

Pre and post test data on Career Planning Knowledge was available only on the eighth grade students. The eighth grade students made a gain which was significant at the .10 level of confidence. It is felt by the evaluator that if more time had been availalbe between the pre and post test scores the gain would have been significant at the expected criteria level.

Table 18: THE GAIN MADE BY A SAMPLE OF EIGHTH AND NINTH GRADE STUDENTS ON THE CAREER PLANNING INVOLVEMENT SUBSCORE OF THE ASSESSMENT OF CAREER DEVELOPMENT

Grade Level	Pretest			Post Test			Difference in Means	"t" Ratio
	N	Mean	SD	N	Mean	SD		
8	76	1.80	.30	76	1.89	.30	.09	1.84
9	35	1.90	.29	30	1.88	.34	-.02	-.25
TOTAL	111	1.83	.30	106	1.89	.31	.06	1.44

The eighth grade students made a positive gain on the Career Planning Involvement subtest of the Assessment of Career Development Inventory. The gain was significant at the .10 level of confidence. This objective would probably have been achieved with greater time between pre and post test. The mean post test score of the ninth grade students was lower than their mean pretest score.

To measure the extent that Objective 3d was achieved, Part I - Knowing Yourself of the Career Maturity Inventory was used. This subtest is concerned with the student's self-appraisal skills.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Junior High Component. The students taking the measuring instrument were all eighth grade students enrolled in a second semester Career Orientation course and a sample of ninth grade students from all the ninth grade students in the junior high school. The sampling technique was described under Objective 1 of the junior high school component.

The data in Table 15 show the pre and post test results on Part I of the Career Maturity Inventory. Neither group of students attained the desired gain.

Objective 4: The students in grades 8 and 9 participating in the Career Education Program will improve their work habits as indicated by: their improved attitudes and feelings toward making a career choice and entering the world of work as measured by the attitude scale of the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

To measure the extent that this objective was achieved, the attitude scale of the Career Maturity Inventory was given to the program participants. The attitude scale asks about the students' attitudes and feelings toward making a career choice and entering the world of work.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Junior High Component. The students taking the measuring instrument were all eighth grade students enrolled in a second semester career orientation course and a sample of ninth grade students from all the ninth grade students in the junior high school. The sampling technique was described under Objective 1 of the Junior High School Component.

The data in Table 19 show the pre and post test results on the attitude scale of the Career Maturity Inventory.

Table 19: THE GAIN MADE BY A SAMPLE OF EIGHTH AND NINTH GRADE STUDENTS ON THE ATTITUDE SCALE OF THE CAREER MATURITY INVENTORY

Grade Level	Pretest			Post Test			Difference in Means	r	"t" Ratio
	N	Mean	SD	N	Mean	SD			
8	68	28.53	7.20	68	29.47	5.71	.94	.49	2.88*
9	28	31.07	6.90	28	31.21	6.94	.14	.87	.21
TOTAL	96	29.27	7.17	96	29.98	6.11	.71	.61	1.16

*Significant at the .01 level.

The information in Table 19 shows that the eighth grade students in the Career Orientation Course made a significant gain on the attitude scale, but the sample of ninth grade students did not. This suggests that the program activity (orientation course) is having a positive effect. There is no comparable Career Education Activity available for ninth grade students.

Objective 5: The students in grade nine in the World of Construction course will increase in job preparation skills as indicated by an increase in their knowledge of construction processes as measured by publisher tests. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

The extent that students increased their skills in the World of Construction course was measured by using an achievement test developed by the publisher of the textbook used in the course. This was a 50-point criterion referenced test based on the course content.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Junior High Component. The students taking the measuring instrument were a sample of ninth grade students from all the ninth grade students in the junior high school. The sampling technique was described under Objective 1 of the Junior High School Component.

The data in Table 20 show the pre and post test results.

Table 20: THE GAINS MADE ON A KNOWLEDGE TEST ON CONSTRUCTION PROCESSES BY NINTH GRADE STUDENTS ENROLLED IN THE WORLD OF CONSTRUCTION COURSE

Pretest			Post Test			Gain In		
N	Mean	SD	N	Mean	SD	Mean Score	r	"t"
68	26.15	11.85	68	31.25	11.26	5.10	.76	5.20

The data in Table 20 show that the ninth grade students made a mean gain of 5.10 raw score points. This gain was significant at the .01 level of confidence and thus the objective was achieved.

C. Senior High Component

Objective 1: The students in GCE and in grade 12 participating in the Career Education Program will increase their awareness of and knowledge about work as indicated by:

a. an increase in their knowledge regarding the major duties and required abilities of different types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

b. an increase in their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

c. an increase in their knowledge of entry requirements for major types of paid and unpaid work as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the level of .05 over the pretest;

d. an increase in their knowledge of the impact of social and technological changes in paid and unpaid work as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest; and

e. an increase in their knowledge of the important factors that affect work success and satisfaction as measured by the Career Maturity Inventory. It is expected that the post test will show a gain at the .05 level over the pretest.

To measure the extent objectives 1a and 1b were achieved, the Occupational Characteristics subtest on the Assessment of Career Development Inventory was used. This inventory has previously been described. This subtest focuses on: job duties, working conditions, work schedules, and job values associated with occupations; and worker attributes associated with specific occupations.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests was because of the lateness of USOE in getting draft guidelines for the evaluation of career education programs in the hands of the project directors. When this was given to the project directors, it was stipulated that bids must be taken on evaluation contracts and this delayed the awarding of the contract, the development of the evaluation plan, and the administration of pretests. Because of these factors some of the pretests were not given before February, 1975. The students taking the measuring instrument for this objective were eleventh and twelfth grade students enrolled in the General Cooperative Education Program and a sample of twelfth grade students from all the twelfth grade students in the senior high school. The sample was chosen by obtaining a list of the names of all twelfth grade students and numbering them beginning with number one up. It was decided that a 20 percent sample would be used. A table of random numbers was used to select the 27 students needed to constitute the 20 percent sample.

The data in Table 21 show the pre and post test results on the Occupational Characteristics subscale of the Assessment of Career Development Inventory.

Table 21: THE GAIN MADE BY A SAMPLE OF TWELFTH GRADE STUDENTS AND STUDENTS IN THE CGE PROGRAM ON THE OCCUPATIONAL CHARACTERISTICS SUBSCORE OF THE ASSESSMENT OF CAREER DEVELOPMENT

Grade Level	Pretest			Post Test			Difference in Means	"t" Ratio
	N	Mean	SD	N	Mean	SD		
CCE	27	32.48	9.26	24	22.00	11.83	-10.48	-3.42
12th	27	36.74	7.91	26	37.46	8.38	.72	.32
TOTAL	54	34.61	8.59	50	28.04	10.04	- 6.57	-3.54

The data in Table 21 show that the mean post test score of the General Cooperative Education students was considerably below their mean pretest score. The sample of twelfth grade students made a small but non-significant numerical gain.

Objective 1c was measured by administering Part IV - Looking Ahead (planning) subtest of the Career Maturity Inventory to the target students. This scale tests the students knowledge about occupations and steps that would prepare a person for and enter the occupations.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Senior High Component. The students taking the measuring instrument were all the eleventh and twelfth grade students enrolled in the General Cooperative Education Program and a sample of twelfth grade students from all the twelfth grade students in the senior high school. The sampling technique was described under Objective 1a of the Senior High School Component.

The data in Table 22 show the pre and post test results on the planning subscale of the Assessment of Career Development Inventory.

Table 22: THE GAIN MADE BY A SAMPLE OF TWELFTH GRADE STUDENTS AND THE STUDENTS IN THE GCE PROGRAM ON THE LOOKING AHEAD SUBSCORE ON THE CAREER MATURITY INVENTORY

Grade Level or Group	Pretest			Post Test			Difference in Means	r	"t" Ratio
	N	Mean	SD	N	Mean	SD			
GCE	21	9.81	4.85	21	7.62	4.40	-2.19	.63	-2.85
12th	23	14.17	3.49	23	13.70	3.75	- .47	.61	- .69
TOTAL	44	12.70	4.84	44	10.80	5.06	-1.90	.85	-4.58

The information in Table 22 shows that both group of students' mean post score was lower than their mean pretest score. The GCE students' score was significantly lower.

To measure the extent that Objective 1d was achieved, the Career Planning Knowledge subtest of the Assessment of Career Development was used. The inventory has previously been described. This subtest contains a sampling of facts, concepts, and understandings useful in career planning as suggested by career development theory and guidance practice.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Senior High Component. The students taking the measuring instrument were all the eleventh and twelfth grade students enrolled in the General Cooperative Education Program and a sample of twelfth grade students from all the twelfth grade students in the senior high school. The sampling technique was described under Objective 1a of the Senior High School Component.

The data in Table 23 show the pre and post test results on the Career Planning Knowledge subscale of the Assessment of Career Development Inventory.

Table 23: THE GAIN MADE BY A SAMPLE OF TWELFTH GRADE STUDENTS AND STUDENTS IN THE GCE PROGRAM ON THE CAREER PLANNING KNOWLEDGE SUBSCORE OF THE ASSESSMENT OF CAREER DEVELOPMENT

Grade Level	Pretest			Post Test			Difference in Means	"t" Ratio
	N	Mean	SD	N	Mean	SD		
GCE	27	23.26	6.74	24	18.54	5.23	-4.72	-2.75
12th	27	25.85	4.22	26	26.00	4.64	.23	.18
TOTAL	54	24.56	5.48	50	22.46	4.92	-2.10	-2.04

The data in Table 23 show that the General Cooperative Education students' mean post test score was significantly lower than their mean pretest score. The sample of twelfth grade students made a small numerical but non-significant gain.

The extent objective 1c was achieved was determined by giving Part I - Knowing Yourself of the Career Maturity Inventory as a pre and post test. Part I of the Career Maturity Inventory is concerned with the student's self-appraisal knowledge.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Senior High Component. The students taking the measuring instrument were all the eleventh and twelfth grade students enrolled in the General Cooperative Education Program and a sample of twelfth grade students from all the twelfth grade students in the senior high school. The sampling technique was described under Objective 1a of the Senior High School Component.

The data in Table 24 show the pre and post test results on the Part I - Knowing Yourself of the Career Maturity Inventory.

Table 24: THE GAIN MADE BY A SAMPLE OF THE TWELFTH GRADE STUDENTS AND THE STUDENTS IN THE GCE PROGRAM ON THE KNOWING YOURSELF SCALE ON THE CAREER MATURITY INVENTORY

Grade Level or Group	Pretest			Post Test			Difference in Means	r	"t" Ratio
	N	Mean	SD	N	Mean	SD			
GCE	23	9.65	4.82	23	8.39	5.14	-1.26	.74	-1.64
12th	23	12.39	4.55	23	12.39	4.02	0.00	.81	0.00
TOTAL	46	11.02	4.84	46	10.39	4.99	- .63	.79	-1.33

The information in Table 24 shows no gain or lower mean post test scores than pretest scores.

Objective 2: The students in GCE and grade 12 participating in the Career Education Program will increase their career decision making skills as indicated by:

a. an increase in their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

b. an increase in their ability to relate their personal interests and values to types of paid and unpaid work and their associated lifestyles as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

c. an increase in their ability to identify, locate, and utilize sources of information to solve career decision making problems as measured by the Assessment of Career Development. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest;

d. an increase in their knowledge of the steps to be taken and the factors to be considered in career planning as measured by the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest and;

e. an increase in their active involvement in career decision making as measured by the Assessment of Career Development. It is expected that post test will show a statistically significant gain at the .05 level over the pretest.

To measure the extent that objective 2a and 2b were achieved, Part I - Knowing Yourself and Part III - Choosing a Job of the Career Maturity Inventory were administered. Part I is concerned with the students self-appraisal skills while Part III focuses on career goal selection decision making skills.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Senior High Component. The students taking the measuring instrument were eleventh and twelfth grade students enrolled in the General Cooperative Education Program and a sample of twelfth grade students from all the twelfth grade students in the senior high school. The sampling technique was described under Objective 1a of the senior high school component.

The data in Tables 25 and 26 show the pre and post test results on Part I and III of the Career Maturity Inventory.

Table 25: THE GAIN MADE BY A SAMPLE OF TWELFTH GRADE STUDENTS AND THE STUDENTS IN THE GCE PROGRAM ON THE KNOWING YOURSELF SCALE ON THE CAREER MATURITY INVENTORY

Grade Level or Group	Pretest			Post Test			Difference in Means	r	"t" Ratio
	N	Mean	SD	N	Mean	SD			
GCE	23	9.65	4.82	23	8.39	5.14	-1.26	.74	-1.64
12th	23	12.39	4.55	23	12.39	4.02	0.00	.81	0
TOTAL	46	11.02	4.84	46	10.39	4.99	- .63	.79	-1.33

The information in Table 25 shows no gain or lower mean post test score than pretest scores.

Table 26: THE GAIN MADE BY A SAMPLE OF TWELFTH GRADE STUDENTS AND THE STUDENTS IN THE GCE PROGRAM ON THE CHOOSING A JOB SCALE ON THE CAREER MATURITY INVENTORY

Grade Level or Group	Pretest			Post Test			Difference in Means	r	"t" Ratio
	N	Mean	SD	N	Mean	SD			
GCE	21	10.24	3.96	21	6.30	4.85	-3.86	.58	-4.20
12th	23	12.00	2.92	23	12.35	3.45	.35	.74	.70
TOTAL	44	11.16	3.53	44	9.50	5.11	-1.66	.05	-2.80

In Table 26, it can be seen that the sample of twelfth grade students made a small numerical but non-significant gain. The mean post test scores of the GCE was less than their mean pretest score.

Objectives 2c and 2e were measured by administering two subtests from the Assessment of Career Development Inventory. The inventory was described under objective 1 of the Junior High School Component. The subtest used in the measurement of the objectives were the Career Planning Knowledge subscale and the Career Planning Involvement subscale. The former subtest contains a sampling of facts, concepts, and understandings useful in career planning while the latter subtest is concerned with the extent of student involvement in exploratory and planning experiences available in the school and community both on a formal and informal basis.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Senior High Component. The students taking the measuring instrument were eleventh and twelfth grade students enrolled in the General Cooperative Education Program and a sample of twelfth grade students from all the twelfth grade students in the senior high school. The sampling technique was described under Objective 1a of the Senior High School Component.

The data in Tables 27 and 28 show the pre and post test results on the Career Planning Knowledge and Career Planning Involvement subscales of the Assessment of Career Development Inventory.

Table 27: THE GAIN MADE BY A SAMPLE OF TWELFTH GRADE STUDENTS, AND STUDENTS IN THE GCE PROGRAM ON THE CAREER PLANNING KNOWLEDGE SUBSCORE OF THE ASSESSMENT OF CAREER DEVELOPMENT

Grade Level	Pretest			Post Test			Difference in Means	"t" Ratio
	N	Mean	SD	N	Mean	SD		
GCE	27	23.26	6.74	24	18.54	5.23	-4.72	-2.75
12th	27	25.85	4.22	26	26.00	4.64	.23	.18
TOTAL	54	24.56	5.48	50	22.46	4.92	-2.10	-2.04

The information in Table 27 shows that the GCE students' mean post test score was significantly lower than their mean pretest score. The sample of twelfth grade students made a small but non-significant gain.

Table 28: THE GAIN MADE BY A SAMPLE OF TWELFTH GRADE STUDENTS, AND STUDENTS IN THE GCE PROGRAM ON THE CAREER PLANNING INVOLVEMENT SUBSCORE OF THE ASSESSMENT OF CAREER DEVELOPMENT

Grade Level	Pretest			Post Test			Difference in Means	"t" Ratio
	N	Mean	SD	N	Mean	SD		
GCE	25	2.03	.16	24	1.98	.24	-.05	-.84
12th	27	1.81	.24	26	1.92	.23	.11	1.67
TOTAL	52	1.92	.20	50	1.95	.23	.03	

The data in Table 28 show that in Career Planning Involvement the GCE students mean post test score was slightly lower than their mean pretest score while the reverse was true for the sample of twelfth grade students.

To measure the extent that Objective 2 was achieved, Part I - Knowing Yourself of the Career Maturity Inventory was used. This subtest is concerned with the student's self-appraisal skills.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Senior High Component. The students taking the measuring instrument were eleventh and twelfth grade students enrolled in the General Cooperative Education Program and a sample of twelfth grade students from all the twelfth grade students in the senior high school. The sampling technique was described under Objective 1a of the senior high school component.

The data in Table 25 show the pre and post test results on Part I of the Career Maturity Inventory. The information shows no gain or lower mean post test score than pretest scores.

Objective 3: The students in GCE and grade 12 participating in the Career Education Program will improve their work habits as indicated by their improved attitudes and feelings toward making a career choice and entering the world of work as measured by the attitude scale of the Career Maturity Inventory. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

To measure the extent that this objective was achieved, the attitude scale of the Career Maturity Inventory was given to the program participants. The attitude scale asks about the student attitudes and feelings toward making a career choice and entering the world of work.

The measuring instrument was given as a pretest in February 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Senior High Component. The students taking the measuring instrument were eleventh and twelfth grade students enrolled in the General Cooperative Education Program and a sample of twelfth grade students from all the twelfth grade students in the senior high school. The sampling technique was described under objective 1a of the senior high school component.

The data in Table 29 show the pre and post test results on the attitude scale of the Career Maturity Inventory.

Table 29: THE GAIN MADE BY STUDENTS IN THE GCE PROGRAM AND A SAMPLE OF TWELFTH GRADE STUDENTS ON THE ATTITUDE SCALE OF THE CAREER MATURITY INVENTORY

Grade Level or Group	Pretest			Post Test			Difference in Means	r	"t" Ratio
	N	Mean	SD	N	Mean	SD			
GCE	23	33.00	6.71	23	33.48	5.78	.48	.76	.51
12th	23	34.57	6.07	23	34.52	6.74	-.05	.70	-.05
TOTAL	46	33.78	6.38	46	34.22	6.04	.44	.68	.59

Information in Table 29 shows that the GCE students made a small numerical but non-significant gain while the reverse was true for the sample of twelfth grade students.

Objective 4: Students in grade 12 will be placed in further education or occupations as indicated by the fact that:

a. a greater number of students in grade 12 will be placed in further education during the 1974-75 year than during the 1973-74 year as indicated by placement records, and

b. a greater number of students in grade 12 will be placed in paid and unpaid occupations during the 1974-75 school year than during the 1973-74 year as indicated by placement records.

The career education counselor kept a record of the educational and placement referrals made during the year with the seniors. This record was the measuring instrument for this objective. Table 30 shows information on the extent that 1973-74 and 1974-75 seniors received placement or educational referrals. Specific information was not available on placement in paid and unpaid occupations.

Table 30: A COMPARISON OF THE NUMBER OF 1973-74 AND 1974-75 SENIORS RECEIVING EDUCATIONAL OR PLACEMENT REFERRALS

Type of Referral	Students Receiving Referral			
	1973-74		1974-75	
	Number	Percent	Number	Percent
Job Referral Only	20	15.75	37	27.61
Educational Referral Only	73	57.48	65	48.51
Job and Educational Referral	20	15.75	25	18.66
No Referral	14	11.02	7	5.22
TOTAL	127	100.00	134	100.00

The data in Table 30 show that only 5 percent of the students were not referred during the 1974-75 school as compared with 11 percent for the 1973-74 school year. This would indicate an improvement. Where nearly all the students or either given an educational or job referral, it is impossible to increase one without decreasing the other. Thus the performance criteria of the objective is not really applicable to this program. The general intent of the objective in placing students in further education or occupations was achieved.

Objective 5: The students in grade 10 participating in the World of Manufacturing course will increase their job preparation skills as indicated by their increased knowledge of manufacturing processes as measured by publisher tests. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

The extent that students increased their skills in the World of Manufacturing course was measured by using an achievement test developed by the publishers of the textbook used in the course. This was a 50-point criterion test based on the course content.

The measuring instrument was given as a pretest in February, 1975 and again as a post test in May, 1975. The reason for the shortness of time between the pre and post tests has been explained under Objective Number 1a of the Senior High Component. The students taking the measuring instrument were all tenth grade students enrolled in World of Manufacturing courses.

The data in Table 31 show the pre and post test results.

Table 31: THE GAINS MADE ON A KNOWLEDGE TEST ON MANUFACTURING PROCESSES BY TENTH GRADE STUDENTS ENROLLED IN THE WORLD OF MANUFACTURING COURSE

Pretest			Post Test			Gain in		
N	Mean	SD	N	Mean	SD	Mean Score	r	"t"
32	21.50	5.90	32	22.91	6.55	1.41	.50	1.26

The data in Table 31 show that the tenth grade students made a mean gain of 1.41 raw score points. This gain was not significant and the expected performance level of the objective was not achieved. It should be noted that the criterion referenced test covered the entire content of the manufacturing course, while the instructional period covered only one semester.

D. Management Component

Objective 1: The school administration will increase the number and type of job preparation opportunities during the 1974-75 school year. It is expected that there will be a 10 percent greater number and more types of job preparation programs than were offered during the 1973-74 school year as indicated by a summary report on available job preparation programs.

Management objective one was measured by comparing the number of job training fields offered in the Monticello School District during the 1974-75 school year with those offered in the district during the 1973-74 school year. The comparisons are shown in Table 32.

Table 32: A COMPARISON OF THE JOB TRAINING FIELDS OFFERED IN 1974-75 WITH THOSE OFFERED IN 1973-74

Job Training Field	Offered In 1973-74	Offered In 1974-75
Bookkeeping	Yes	Yes
Child Development	Yes	Yes
Clothing	Yes	Yes
Consumer Education	Yes	Yes
Family Relation	Yes	Yes
Foods and Nutrition	Yes	Yes
General Record Keeping	Yes	Yes
Home Economics I	Yes	Yes
Home Economics II	Yes	Yes
Housing	Yes	Yes
Occupational Orientation	Yes	Yes
Office Practice	Yes	Yes
Typing	Yes	Yes
Shorthand	Yes	Yes
World of Construction	Yes	Yes
World of Manufacturing	Yes	Yes
General Cooperative Education	Yes	Yes

(Continued)

Table 32 Continued

Job Training Field	Offered In 1973-74	Offered In 1974-75
Coordinated Career Education	No	Yes
Automobile Mechanics	No	Yes
Building Trades	No	Yes
Health Occupations	No	Yes
Metal Trades	No	Yes
Textiles	No	Yes
Welding	No	Yes
TOTAL	17	24

The data in the above table show there were seven additional job preparation programs offered during the 1974-75 school year. This is approximately a 41 percent increase in the number of job preparation programs. The objective was achieved.

Objective 2: The school administration will demonstrate knowledge of the finances expended on the Career Education Program that came from Section 142(C) of Part D of Public Law 90-576 as indicated by an expenditure report containing data on money expended by components.

The table below shows the expenditure report for the project year. This information shows that the performance criteria of the objective was achieved.

Table 33: THE 1974-75 EXPENDITURES, BY COMPONENTS FOR THE CAREER EDUCATION PROGRAM

Budget Category	AMOUNT EXPENDED				TOTAL
	Elementary Component	Junior H. S. Component	Senior H. S. Component	Management Component	
Personnel	$10,600	$14,800	$25,400	$16,700	$ 67,500
Fixed Charges	1,510	2,109	3,619	2,379	9,617
Travel and Per Diem	900	450	1,050	1,700	4,100
Contracted Services	0	0	0	5,600	5,600
In-Service Training	2,700	2,700	2,700	0	8,100
Advisory Council Expenses	0	0	0	210	210
Administrative Council Expenses	0	0	0	216	216
Communication	0	0	0	1,800	1,800
Services - Duplicating, etc.	0	0	0	900	900
Production of Reports	0	0	0	500	500
Supplies and Materials	1,500	9,000	9,000	949	20,449
Equipment	700	700	700	400	2,500
Other	0	0	0	2,000	2,000
TOTAL	$17,910	$29,759	$42,469	$33,354	$123,492

Objective 3: The teachers involved in the Career Education Program will increase their knowledge of career education as indicated by in-service training tests. It is expected that the post test will show a statistically significant gain at the .05 level over the pretest.

During the year, a number of teachers were involved in an in-service training program. The teachers received college credit through the University of Arkansas. The objective was to be measured by administering a pre and post test to the training participants. The measuring instrument was a criterion referenced test based on the content covered by the teacher. The results are shown in Table 34.

Table 34: A COMPARISON OF THE PRETEST AND POST TEST SCORES OF TEACHERS IN THE CAREER EDUCATION WORKSHOPS ON A KNOWLEDGE TEST

Pretest			Post Test			Gain	
N	Mean	SD	N	Mean	SD	In Mean	"t"
70	27.27	2.19	55	28.47	1.98	1.20	3.18*

*Significant at .01 level.

The information in Table 34 shows there was a significant difference between the pre and post test mean scores. More teachers took the pretests than took the post tests. The reason for this is not known. The data indicates the training objective was achieved.

Objective 4: The resource speakers and hosts of field trips will respond positively to the Career Education Program as indicated by their responses on a feedback questionnaire. It is expected that 70 percent of the responses will be positive.

To measure the extent that this objective was achieved a feedback questionnaire was developed and submitted to resource speakers and to individuals that hosted student field trips. The questionnaire contained statements concerning various aspects of career education. The respondents were asked to

indicate on a five-point scale the extent of their agreement or disagreement with the statement. A 1 response indicated a strong disagreement with the statement while a 5 response indicated a highly favorable attitude toward the statement. The questionnaire was sent to 50 persons in late spring. Twenty-seven replies were received and tabulated. The results are shown in Table 35.

Table 35: A SUMMARY OF THE RESPONSES OF THE RESOURCE SPEAKERS AND HOSTS OF FIELD TRIPS ON A FEEDBACK QUESTIONNAIRE

Career Education Concept	RATING SCALE Strongly Disagree 1	2	3	4	Highly Favorable 5	TOTAL
Resource Persons	1	0	2	4	20	27
Small Group Field Trips	2	0	2	4	19	27
Class Field Trips	1	4	7	5	[illegible]	27
Cooperative Work Programs	2	0	4	[illegible]	12	26
Classroom Studies	2	0	7	6	10	25
Career Orientation	1	2	5	6	13	27
Career Exploration	1	0	4	7	14	26
Shadowing	1	0	6	11	9	27
Career Education	2	0	2	4	18	26
TOTAL	13	6	39	55	125	238
PERCENT OF TOTAL	5.46	2.52	16.39	23.11	52.52	100.00

In Table 35 responses numbered 4 and 5 are considered positive. The data shows that nearly 76 percent of the responses were positive. The expected performance level of the objective was achieved.

VI. SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

A. Summary of Findings

Tables 36-39 summarize the results of the evaluation by components. Information is presented for each objective and include the measuring instrument, expected performance level, target population, results, and whether the objective was achieved.

Table 36: SUMMARY OF THE EVALUATION RESULTS FOR THE ELEMENTARY COMPONENT

Objective	Measuring Instrument	Expected Performance Level	Target Population	Results	Objective Achieved	
					Yes	No
1a	Values Test	70% of possible score on test	Students in Grade 3	56%		X
			Students in Grade 6	74%	X	
			Students in Grades 3&6	66%		X
1b	Coopersmith Self-Esteem	Significant gain at .05 level in self-esteem	Students in Grade 3	t=1.67		X
			Students in Grade 6	t=1.27		X
			Students in Grades 3&6	t=2.06	X	
2a, b, c	Career Education Questionnaire	Significant gain at .05 level in career knowledge	Students in Grade 3	t=3.21	X	
			Students in Grade 6	t=41.39	X	
			Students in Grades 3&6	t=N/A	X	

Table 37: SUMMARY OF THE EVALUATION RESULTS FOR THE JUNIOR HIGH SCHOOL COMPONENT

Objective	Measuring Instrument	Expected Performance Level	Target Population	Results	Objective Achieved	
					Yes	No
1a	Assessment of Career Development, Item 37	Significant gain at .05 level on positive attitude toward self	Students in Grade 8	X^2=1.42		X
			Students in Grade 9	X^2=1.07		X
			Students in grades 8&9	X^2= .22		X
1a	Assessment of Career Development, Item 38	Significant gain at .05 level on attitude toward their job future	Students in Grade 8	X^2=7.78	X	
			Students in Grade 9	X^2= .75		X
			Students in Grades 8&9	X^2=4.06		X
2a,b	Assessment of Career Development and Occupational Characteristics	Significant gain at .05 level in knowledge of job duties, and working conditions	Students in Grade 8	t = .39		X
			Students in Grade 9	t = .21		X
			Students in grades 8&9	t = .04		X
2c	Assessment of Career Development and Occupational Preparation Requirements	Significant gain at .05 level in knowledge of training associated with jobs	Students in Grade 8	t = .15		X
			Students in Grade 9	t = .16		X
			Students in Grades 8&9	t = .06		X
2d	Assessment of Career Development, Career Planning Knowledge	Significant gain at .05 level in knowledge of information and career planning	Students in Grade 8	t = 1.88	X	
			Students in Grade 9	N/A		
			Students in Grades 8&9	N/A		
2e	Career Maturity Inventory, Competency Scale	Significant gain at .05 level in self-appraisal knowledge	Students in Grade 8	t = .95		X
			Students in Grade 9	t = -.50		X
			Students in Grades 8&9	t = .65		X

(Continued)

Table 37 Continued

Objective	Measuring Instrument	Expected Performance Level	Target Population	Results	Objective Achieved	
					Yes	No
3a,b,d	Career Maturity Inventory, Competency Scale	Significant gain at .05 level in self-appraisal knowledge	Students in Grade 8 Students in Grade 9 Students in Grades 8&9	t = .95 t = -.50 t = .16		X X X
3a,b	Career Maturity Inventory, Competency Scale	Significant gain at .05 level in goal selection skills	Students in Grade 8 Students in Grade 9 Students in Grades 8&9	t = .90 t = -.29 t = .62		X X X
3c,e	Assessment of Career Development, Career Planning Knowlege	Significant gain at .05 level in knowledge of information and in career planning	Students in Grade 8 Students in Grade 9 Students in Grades 8&9	t = 1.88 N/A N/A	X	
3c,e	Assessment of Career Development, Career Planning Knowledge	Significant gain at .05 level in involvement in explanatory and planning experiences	Students in grade 8 Students in Grade 9 Students in Grades 8&9	t = 1.84 t = -.25 t = 1.44	X	 X X
4	Career Maturity Inventory, Attitude Scale	Significant gain at .05 level in attitude toward career choice	Students in Grade 8 Students in Grade 9 Students in Grades 8&9	t = 2.88 t = .21 t - 1.16	X	 X X
5	Criterion Referenced Knowledge Test	Significant gain at .05 level in knowledge of construction processes	Students in Grade 9	t = 5.20	X	

Table 38: SUMMARY OF THE EVALUATION RESULTS FOR THE SENIOR HIGH SCHOOL COMPONENT

Objective	Measuring Instrument	Expected Performance Level	Target Population	Results	Objective Achieved Yes	Objective Achieved No
1a,b	Assessment of Career Development, Occupational Characteristics	Significant gain at .05 level in knowledge of job duties, working conditions	Students in GCE	t = -3.42		X
			Students in Grade 12	t = .32		X
			Students in GCE and Grade 12	t = 3.54		X
1c	Career Maturity Inventory, Competency Test	Significant gain at .05 level in knowledge about jobs and preparation for jobs	Students in GCE	t = -2.85		X
			Students in Grade 12	t = -.69		X
			Students in GCE and Grade 12	t = -4.58		X
1d	Assessment of Career Development; Career Planning Knowledge	Significant gain at .05 level in knowledge of information used in career planning	Students in GCE	t = -2.75		X
			Students in Grade 12	t = .18		X
			Students in GCE and Grade 12	t = -2.04		X
1e	Career Maturity Inventory, Competency Scale	Significant gain at .05 level in self-appraisal knowledge	Students in GCE	t = -1.64		X
			Students in Grade 12	t = 0		X
			Students in GCE and Grade 12	t = -1.33		X
2a,b,d	Career Maturity Inventory, Competency Scale	Significant gain at .05 level in self-appraisal knowledge	Students in GCE	t = -1.64		X
			Students in Grade 12	t = 0		X
			Students in GCE and Grade 12	t = -1.33		X

(Continued)

Table 38 Continued

Objective	Measuring Instrument	Expected Performance Level	Target Population	Results	Objective Achieved Yes	Objective Achieved No
2a,b	Career Maturity Inventory, Competency Scale	Significant gain at .05 level in goal selection skills	Students in GCE	t = 4.20		X
			Students in Grade 12	t = .70		X
			Students in GCE and Grade 12	t = 2.80		X
2c,e	Assessment of Career Development, Career Planning Knowledge	Significant gain at .05 level in knowledge of information used in career planning	Students in GCE	t = -2.75		X
			Students in Grade 12	t = .18		X
			Students in GCE and Grade 12	t = -2.04		X
2c,e	Assessment of Career Development, Career Planning Involvement	Significant gain at .05 level in involvement in exploratory and planning experience	Students in GCE	t = -.84		X
			Students in Grade 12	t = 1.67		X
			Students in GCE and Grade 12	t = 1.41		X
3	Career Maturity Inventory, Attitude Scale	Significant gain at .05 level in attitude toward career choice	Students in GCE	t = .51		X
			Students in Grade 12	t = -.05		X
			Students in GCE and Grade 12	t = .59		X
4a,b	Placement records	Greater education and work placement over previous years	12th grade students	6 percent more students were given jobs and/or educational placement referrals than were given in 1973-74	X	

(Continued)

Table 38 Continued

Objective	Measuring Instrument	Expected Performance Level	Target Population	Results	Objective Achieved	
					Yes	No
5	Criterion Referenced Knowledge Test	Significant gain at .05 level in knowledge of manufacturing process	Students in grade 10 course	t = 1.26		X

Table 39: SUMMARY OF THE EVALUATION RESULTS FOR THE MANAGEMENT COMPONENT

Objective	Measuring Instrument	Expected Performance Level	Target Population	Results	Objective Achieved	
					Yes	No
1	Curriculum Offerings	10 percent greater greater job preparation programs	N/A	41 percent increase in number of job preparation programs	X	
2	Expenditure Report	Amount of money spent by components	N/A	Report available on expenditures by components	X	
3	In-Service Training Tests	Significant gain at .05 level on knowledge of career education	Teachers participating in training	Significant gain at .01 level was made	X	
4	Feedback Questionnaire	70 percent positive response	Resource speakers and hosts of field trips	76 percent positive response	X	

B. Conclusions

The evaluation findings suggest the following conclusions.

1. The evaluation findings are not a valid measure of the program effectiveness because measurement data covers a period of time of one semester or less.

2. The United States Office of Education's policies and guidelines concerning the evaluation of the 1974-75 career education program placed such a time constraint on the local school district that it was virtually impossible to obtain data that would effectively measure the results of the 1974-75 program in the time alloted.

3. Elementary students in the career education program significantly increased their awareness of and knowledge about work as indicated, by their scores on the Career Education Questionnaire.

4. Selected groups of elementary students significantly increased their self-awareness but other groups of students did not make such improvement as measured by a values test and a self-concept measure.

5. Career education activities at the eighth grade level were successful in significantly increasing the students' attitude toward their job future but had little effect on improving their attitude toward self. Ninth grade students showed little change in these self-awareness areas.

6. The eighth and ninth grade students in the junior high school showed little increase in their awareness of and knowledge about work as measured by selected subtests on the Assessment of Career Development and the Career Maturity Inventory. An exception is noted with eighth grade students showing a significant increase in career planning knowledge.

7. Ninth grade students demonstrated no increase in their career decision making skills, but eighth grade students made a significant increase in their career planning knowledge.

8. The eighth grade students significantly increased their positive attitude toward work as measured by the Attitude Scale of the Career Maturity Inventory but this effect did not occur with the ninth grade students.

9. The ninth grade students significantly increased their knowledge of construction processes as measured by a criterion referenced test.

10. In the junior high school component, the program activities seemed to be more effective with the eighth grade students as the ninth grade students did not achieve any of the objectives except in job preparation skills.

11. The program activities at the senior high school level had little effect on the career development of the twelfth grade students as no significant increase was noted in their (a) awareness of and knowledge about work, (b) career decision making skills, (c) attitude toward work, or (d) their knowledge of manufacturing processes.

12. A significantly greater percent of twelfth grade students were given educational and/or job referrals during the 1974-75 school year than were given during the 1973-74 school year.

13. The management activities were successful as the objectives concerning in-service training, positive response from resource and field trip host personnel, and development of job preparation programs were all achieved.

C. Recommendations

The following recommendations are made from the evaluation findings and the conclusions:

1. It is recommended that the 1975-76 evaluation plan for the Career Education Program be finalized in August so that its implementation will provide assessment data covering nine months of program activities.

2. If USOE desires to make any changes in their guidelines for evaluating career education programs, the changes should be given to the project directors immediately.

3. The career education activities in the elementary component should be continued, but it is recommended that the coordinator and teachers should compare the program activities with the values and self-concept tests. One or the other needs to be strengthened.

4. It is suggested that the treatment group at the junior high school level be limited to those students actually involved in program activities that are being funded under the grant.

5. The eighth grade orientation program appears to be making the desired impact, but it is recommended that the eighth grade orientation teachers review the skills, attitudes, and knowledge being measured in the Assessment of Career Development and the Career Maturity Inventory and if these seem desirable they should develop instructional activities that will focus on these behaviors.

6. The World of Construction course taught at the ninth grade level is effective and should be continued.

7. It is recommended that consideration be given to the development of pilot career education activities at the senior high school level and evaluation be limited to those treatment groups. An example of a pilot project would be a 6-9 week mathematics unit developed to increase math competency but taught by using related career concepts and knowledge. Evaluation might assess changes in students achievement in math, knowledge of careers, and changes in students attitude toward math.

8. The placement program and the World of Manufacturing course at the senior high school should be continued, but the manufacturing course needs to be monitored closely to see if significant changes can be accomplished in student achievement.

9. It is recommended that in-service training activities be continued and should primarily be conducted for those individuals conducting program activities or potential future activities with project funds.

10. Since it is difficult to obtain a control group for evaluation purposes, it is recommended that wherever possible standardized measuring instruments be used so that participating students accomplishments can be compared with the norm group for their age or grade level.

11. The Monticello School District has a potential for developing a model career education program, and the administrators should be encouraged to continue the development of the program at all levels. Special emphasis should be given to the continued development of career awareness, career exploratory, and career preparation programs at the secondary level for all students.

A P P E N D I X

Evaluation Design Summary Charts

EVALUATION DESIGN SUMMARY CHART

ELEMENTARY COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
IB. The 3rd & 6th grade students participating in the Career Education Program will demonstrate ability to describe their own interests and values as measured by a locally developed test. It is expected that the mean score of the group will be 70 percent of the possible score.	Locally Developed Values Test	April 1, 1974	Data in various interests and values	All 3rd and 6th grade students	May, 1975	Elementary Curriculum Coordinator
IC. The 3rd and 6th grade students participating in the Career Education Program will increase their positive attitude toward themselves as measured by the Coopersmith Self-Esteem Inventory. It is expected that a statistically significant gain at the .05 level will be achieved.	Coopersmith Self-Esteem	Already Available	Attitudes toward self and others	All 3rd & 6th grade students	Pretest Dec., 1974 Post Test April, 1975	Elementary Curriculum Coordinator

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
	Dissemination of Evaluation Results for Overall Project				
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
IB. Each test will be scored to determine the number of correct responses. The mean number of correct responses will be computed and compared with the possible score.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Educatio Superintendent of Schools, Advisory Council Community
IC. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

ELEMENTARY COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
IVA. The 3rd and 6th grade students participating in the Career Education Program will increase their knowledge regarding the major duties and required abilities of different types of paid and unpaid work as measured by the Career Education Questionnaire. It is expected that a statistically significant gain at the .05 level will be achieved.	Career Education Questionnaire Grades K-3	Already Available	Knowledge of duties and abilities involved in various types of jobs	All 3rd grade students	Pretest Dec., 1974 Post Test April, 1975	Elementary Curriculum Coordinator
	Career Education Questionnaire, Grades 4-6	Already Available	Same as above	All 6th grade students	Pretest Dec., 1974 Post Test April, 1975	Same as above
IVb. The 3rd and 6th grade students participating in the Career Education Program will increase their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work as measured by the Career Education Questionnaire. It is expected that a statistically significant gain at the .05 level will be achieved.	Career Education Questionnaire Grades K-3	Already Available	Knowledge of work conditions in various types of jobs	All 3rd grade students	Pretest Dec., 1974 Post Test April, 1975	Elementary Curriculum Coordinator
	Career Education Questionnaire Grades 4-6	Already Available	Same as above	All 6th grade students	Pretest Dec., 1974 Post Test April, 1975	Same as above

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
	Evaluator's Report Date	Dissemination of Evaluation Results for Overall Project			
		Person Responsible	Method	Schedule	Recipient/ Audience
IVA. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
IVB. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

ELEMENTARY COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
IVC. The 6th grade students participating in the Career Education Program will increase their knowledge of entry requirements for major types of paid and unpaid work as measured by the Career Education Questionnaire. It is expected that a statistically significant gain at the .05 level will be achieved.	Career Education Questionnaire	Already Available	Knowledge of entry requirements of various types of jobs	All 6th grade students	Pretest December, 1974 Post Test April, 1975	Elementary Curriculum Coordinator

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
		Dissemination of Evaluation Results for Overall Project			
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
IVC. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports; newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

JUNIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
IC. The 8th and 9th grade students participating in the Career Education Program will increase their positive attitude toward themselves as measured by the Assessment Career Development. It is expected that a statistically significant gain at the .05 level will be achieved.	The Assessment of Career Development	Already Available	Career planning knowledge, items 3; and 38 of Unit IV	Sample of 9th grade students and 8th grade students in 2nd semester orientation class	Pretest Dec., 1974 Post Test April, 1975	Counselors
ID. The 8th and 9th grade students participating in the Career Education Program will increase their recognition that social, economic, educational, and cultural forces influence their development as measured by the Career Development Inventory. It is expected that a statistically significant gain at the .05 level will be achieved.	Career Development Inventory	Already Available	Scale C. Information and Decision Making	Sample of 9th grade students & 8th grade students in 2nd semester orientation class	Pretest Dec., 1974 Post Test April, 1975	Counselors

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
	Dissemination of Evaluation Results for Overall Project				
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
IC. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports; newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
ID. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports; written reports; newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

JUNIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
IVA. The 8th and 9th grade students participating in the Career Education Program will increase their knowledge regarding the major duties and required abilities of different types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that a statistically significant gain at the .05 level will be achieved.	Assessment of Career Development	Already Available	Subscale 1, 3 Occupational Characteristics, Career Planning Knowledge	Sample of 9th grade students & 8th grade students in 2nd semester orientation class	Pretest Dec., 1974 Post Test April, 1975	Counselors
IVB. The 8th and 9th grade students participating in the Career Education Program will increase their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that a statistically significant gain at the .05 level will be achieved.	Assessment of Career Development	Already Available	Subscale 1 Occupational Characteristics	Sample of 9th grade students and 8th grade students in 2nd semester orientation class	Pretest Dec., 1974 Post Test April, 1975	Counselors

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
	Dissemination of Evaluation Results for Overall Project				
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
IVA. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
IVB. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

JUNIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
IVC. The 8th and 9th grade students participating in the Career Education Program will increase their knowledge of entry requirements for major types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that a statistically significant gain at the .05 level will be achieved.	Assessment of Career Development	Already Available	Subscale 2, Occupational Preparation Requirements	Sample of 9th grade students and 8th grade students in 2nd semester orientation	Pretest Dec., 1974 Post Test April, 1975	Counselors
IVD. The 8th and 9th grade students participating in the Career Education Program will increase their knowledge of the impact of social and technological change in paid and unpaid work as measured by the Assessment of Career Development. It is expected that a statistically significant gain at the .05 level will be achieved.	Assessment of Career Development	Already Available	Subscale 4, Career Planning Knowledge	Sample of 9th grade students and 8th grade students in the second semester orientation class	Pretest Dec., 1974 Post Test April, 1975	Counselors

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
	Dissemination of Evaluation Results for Overall Project				
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
IVC. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports; newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
IVD. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports; newslettters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

JUNIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
IVB. The 8th and 9th grade students participating in the Career Education Program will increase their knowledge of the important factors that affect work success and satisfaction as measured by the Career Maturity Inventory. It is expected that a statistically significant gain at the .05 level will be achieved.	Career Maturity Inventory	Already Available	Part I - Knowing Yourself	Sample of 8th & 9th grade students and 8th grade students in 2nd semester orientation course	Pretest Dec., 1974 Post Test April, 1975	Counselors
VA. The 8th and 9th grade students participating in the Career Education Program will increase their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work as measured by the Career Maturity Inventory It is expected that a statistically significant gain at the .05 level will be achieved.	Career Maturity Inventory	Already Available	Part I - Knowing Yourself Part III - Choosing a Job	Sample of 9th grade students and 8th grade students in 2nd semester orientation course	Pretest Dec., 1974 Post Test April, 1975	Counselors

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
	Dissemination of Evaluation Results for Overall Project				
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
IVE. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
VA. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

JUNIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
VB. The 8th and 9th grade students participating in the Career Education Program will increase their personal interests and values to types of paid and unpaid work and their associated life styles as measured by the Career Maturity Inventory. It is expected that a statistically significant gain at the .05 level will be achieved.	Career Maturity Inventory	Already Available	Part I - Knowing Yourself Part III- Choosing a Job	Sample of 9th grade students and 8th grade students in 2nd semester orientation course	Pretest Dec., 1974 Post Test April, 1975	Counselors
VC. The 8th and 9th grade students participating in the Career Education Program will increase their ability to (a) identify, (b) locate, and (c) utilize sources of information to solve career decision making problems as measured by the Assessment of Career Development. It is expected that a statistically significant gain at the .05 level will be achieved.	Assessment of Career Development	Already Available	Subscore 4 - Career Planning Knowledge Subscore 5 - Career Planning Involvement	Sample of 9th grade students and 8th grade students in 2nd semester orientation course	Pretest Dec., 1974 Post Test April, 1975	Counselors

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
		Dissemination of Evaluation Results for Overall Project			
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
VB. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports; newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
VC. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports; newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

JUNIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
VE. The 8th and 9th grade students participating in the Career Education Program will increase their knowledge of the steps to be taken and the factors to be considered in career planning as measured by the Career Maturity Inventory. It is expected that a statistically significant gain at the .05 level will be achieved.	Career Maturity Inventory	Already Available	Part I - Knowing Yourself	Sample of 9th grade students and 8th grade students in 2nd semester orientation course	Pretest Dec., 1974 Post Test April, 1975	Counselors
VF. The 8th and 9th grade students participating in the Career Education Program will increase their active involvement in career decision making as measured by the Assessment of Career Development. It is expected that a statistically significant gain at the .05 level will be achieved.	Assessment of Career Development	Already Available	Subscore 5 - Career Planning Involvement	Sample of 9th grade students and 8th grade students in 2nd semester orientation course	Pretest Dec., 1974 Post Test April, 1975	Counselors

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
	Dissemination of Evaluation Results for Overall Project				
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
VE. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
VF. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

JUNIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
VIC, D, E. The 8th and 9th grade students participating in the Career Orientation Class will improve their attitudes and feeling toward making a career choice and entering the world of work as measured by the attitude scale of the Career Maturity Inventory. It is expected that a statistically significant gain at the .05 level will be achieved.	Attitude Scale of the Career Maturity Inventory	Already Available	Attitude toward career choice and world of work	Sample of 9th grade students and 8th grade students in 2nd semester orientation course	Pretest Dec., 1974 Post Test April, 1975	Counselors
XA. The 9th grade students in the World of Construction course will increase their knowledge of construction processes as measured by publisher tests. It is expected that a statistically significant gain at the .05 level will be achieved.	Publisher Tests	Already Available	Various processes involved in construction	9th grade students in the WOC class	Pretest Dec., 1974 Post Test April, 1975	Teacher

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
	Evaluator's Report Date	Dissemination of Evaluation Results for Overall Project			
		Person Responsible	Method	Schedule	Recipient/ Audience
VIC, D, E. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
XA. A mean pre and post test score will be calculated for each grade level and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

SENIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
IVA. The GCE and the 12th grade students participating in the Career Education Program will increase their knowledge regarding the major duties and required abilities of different types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that a statistically significant gain at the .05 level will be achieved.	The Assessment of Career Development	Already Available	Occupational Characteristics - Part I Career Planning Knowlege - Part III	Sample of 12th grade students and all GCE students	Pretest Dec., 1974 Post Test April, 1975	Counselor
IVB. The GCE and 12th grade students participating in the Career Education Program will increase their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work as measured by the Assessment of Career Development. It is expected that a statistically significant gain at the .05 level will be achieved.	The Assessment of Career Development	Already Available	Occupational Characteristics - Part I	Sample of 12th grade students and all GCE students	Pretest Dec., 1974 Post Test April, 1975	Counselor

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
		Dissemination of Evaluation Results for Overall Project			
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
IVA. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
IVB. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

SENIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
IVC. The GCE and the 12th grade students participating in Career Education Program will increase their knowledge of entry requirements for major types of paid and unpaid work as measured by the Career Maturity Inventory. It is expected that a statistically significant gain at the .05 level will be achieved.	Career Maturity Inventory	Already Available	Part 4 - Looking Ahead	Sample of 12th grade students and all GCE students	Pretest Dec., 1974 Post Test April, 1975	Counselor
IVD. The GCE and 12th grade students participating in the Career Education Program will increase their knowledge of the impact of social and technological change in paid and unpaid work as measured by the Assessment of Career Development. It is expected that a statistically significant gain at the .05 level will be achieved.	Assessment of Career Development	Already Available	Subscore 4 - Career Planning Knowledge	Sample of 12th grade students and all GCE students	Pretest Dec., 1974 Post Test April, 1975	Counselor

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
	Evaluator's Report Date	Dissemination of Evaluation Results for Overall Project			
		Person Responsible	Method	Schedule	Recipient/ Audience
IVC. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
IVD. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

SENIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
IVE. The GCE and 12th grade students participating in the Career Education Program will increase their knowledge of the important factors that affect work success and satisfaction as measured by the Career Maturity Inventory. It is expected that a statistically significant gain at the .05 level will be achieved.	Career Maturity Inventory	Already Available	Part I - Knowing Yourself	Sample of 12th grade students and all GCE students	Pretest Dec., 1974 Post Test April, 1975	Counselor
VA. The GCE and 12th grade students participating in the Career Education Program will increase their ability to associate their own abilities and limitations with possible success in present or future paid and unpaid work as measured by the Career Maturity Inventory. It is expected that a statistically significant gain at the .05 level will be achieved.	Career Maturity Inventory	Already Available	Part I - Knowing Yourself Part III - Choosing a Job	Sample of 12th grade students and all GCE students	Pretest Dec., 1974 Post Test April, 1975	Counselor

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
	Dissemination of Evaluation Results for Overall Project				
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
IVE. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
VA. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

HIGH SCHOOL COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
VB. The GCE and the 12th grade students participating in the Career Education Program will increase their ability to relate their personal interests and values to types of paid and unpaid work and their associated life styles as measured by the Career Maturity Inventory. It is expected that a statistically significant gain at the .05 level will be achieved.	Career Maturity Inventory	Already Available	Part I - Knowing Yourself Part III - Choosing a Job	Sample of 12th grade students and all GCE students	Pretest Dec., 1974 Post Test April, 1975	Counselor
VC. The GCE and 12th grade students participating in the Career Education Program will increase their ability to (a) identify, (b) locate, and (c) utilize sources of information to solve career decision making problems as measured by the Assessment of Career Development. It is expected that a statistically significant gain at the .05 level will be achieved.	Assessment of Career Development	Already Available	Subscore 4 - Career Planning Knowledge Subscore 5 - Career Planning Involvement	Sample of 12th grade students and all GCE students	Pretest Dec., 1974 Post Test April, 1975	Counselor

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
		Dissemination of Evaluation Results for Overall Project			
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
VB. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports; newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
VC. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports; newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

SENIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
VD. The GCE and 12 grade students participating in the Career Education Program will increase their knowledge of the steps to be taken and the factors to be considered in career planning as measured by the Career Maturity Inventory. It is expected that a statistically significant gain at the .05 level will be achieved.	Career Maturity Inventory	Already Available	Part I - Knowing Yourself	Sample of 12th grade students and all GCE students	Pretest Dec., 1974 Post Test April, 1975	Counselor
VE. The GCE and 12th grade students participating in the Career Education Program will increase their active involvement in career decision making as measured by the Assessment of Career Development. It is expected that a statistically significant gain at the .05 level will be achieved.	Assessment of Career Development	Already Available	Subscore 5 - Career Planning Involvement	Sample of 12th grade students and all GCE students	Pretest Dec., 1974 Post Test April, 1975	Counselor

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
	Dissemination of Evaluation Results for Overall Project				
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
VD. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
VE. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

SENIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
VIC, D, E. The GCE and the 12th grade students participating in the career orientation class will improve their attitudes and feelings toward making a career choice and entering the world of work as measured by the attitude scale of the Career Maturity Inventory. It is expected that a statistically significant gain at the .05 level will be achieved.	Attitude Scale of the Career Maturity Inventory	Already Available	Attitude toward career choice and world of work	Sample of 12th grade students and all GCE students	Pretest Dec., 1974 Post Test April, 1975	Counselor
VIIA. A greater number of 12th grade students will be placed in further education during the 1974-75 year than was placed during the 1973-74 year.	Placement records	Forms already available	Record of placement in colleges and vocational schools	All 12th grade students	May, 1975	Counselor
VIIIB. A greater number of senior high school students will be placed in paid/unpaid occupations during the 1974-75 school year than was placed during the 1973-74 year.	Placement Records	Forms already available	Record of placement in jobs	All 12th grade students	May, 1975	Counselor

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
		Dissemination of Evaluation Results for Overall Project			
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
VIC, D, E. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
VIIIA. The number of educational placements for 1974-75 will be compared with the number of educational placements for the 1973-74 year.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
VIIIB. The number of placements for 1974-75 will be compared with the number of placements for the 1973-74 year.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

SENIOR HIGH COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
KA. The 10th grade students in the World of Manufacturing course will increase their knowledge of manufacturing processes as measured by publisher tests. It is expected that a statistically significant gain at the .05 level will be achieved.	Publisher tests	Already Available	Various processes involved in manufacturing	10th grade students in the WOM class	Pretest Dec., 1974 Post Test April, 1975	Teacher

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
	Dissemination of Evaluation Results for Overall Project				
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
XA. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

MANAGEMENT COMPONENT PERFORMANCE OBJECTIVE	MEASURMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
1. The school administration will increase the number and type of job preparation opportunities during the 1974-75 school year. It is expected that there will be 10 percent greater number and types of job preparation programs than was offered during the 1973-74 school year.	Summary report on available job preparation programs	Outline for report already available	-Name of course or program -Type of program -Year available	N/A	May, 1974	Project Director
2. The school administration will demonstrate knowledge of the finances expended on the Career Education Project that came from Section 142(C) of Part D of public Law 90-576 as indicated by an expenditure report. It is expected that the report will contain data on money expended by components.	Expenditure Report	Form is already available	Budget category and amount spent by K-3, 4-6, 7-9, and 10-12	N/A	June 30, 1975	Project Director
3. The teachers involved in the Career Education Program will increase their knowledge of career education as indicated by in-service training tests. It is expected that a statistically significant gain at the .05 level will be achieved.	In-Service Training Test	Already Available	Knowledge of career education concepts and techniques	All teachers in program	Pretest Oct., 1974 Port Test April, 1975	In-Service Trainer

DATA ANALYSIS TECHNIQUES	DATA ANALYSIS PRESENTATION				
		Dissemination of Evaluation Results for Overall Project			
	Evaluator's Report Date	Person Responsible	Method	Schedule	Recipient/ Audience
1. The number of job preparation opportunities will be summarized for each of the two years. The percent of increase in the number of opportunities will be computed.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
2. The expenditure report will be reviewed to see if the required information is available	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community
3. A mean pre and post test score will be calculated for each group and the amount of gain will be determined. A "t" test will be computed to see if a significant gain has been made at the .05 level of confidence.	June 30, 1975	Project Director	Oral reports, written reports, newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community

EVALUATION DESIGN SUMMARY CHART

MANAGEMENT COMPONENT PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
4. The resource speakers and hosts of field trips will respond positively to the Career Education Program as indicated by their response on a feedback questionnaire. It is expected that 70 percent of the responses will be positive.	Feedback Questionnaire	April 1, 1975	Attitude toward career education	All resource speakers and field trip hosts	May, 1975	Project Director

DATA ANALYSIS TECHNIQUES	Evaluator's Report Date	Dissemination of Evaluation Results for Overall Project			
		Person Responsible	Method	Schedule	Recipient/ Audience
4. The number of positive responses will be tabulated and compared against the number of possible positive responses. A percentage will be computed.	June 30, 1975	Project Director	Oral reports, written reports; newsletters	August 1, 1975	USOE; State Department of Education, Superintendent of Schools, Advisory Council, Community